

30c

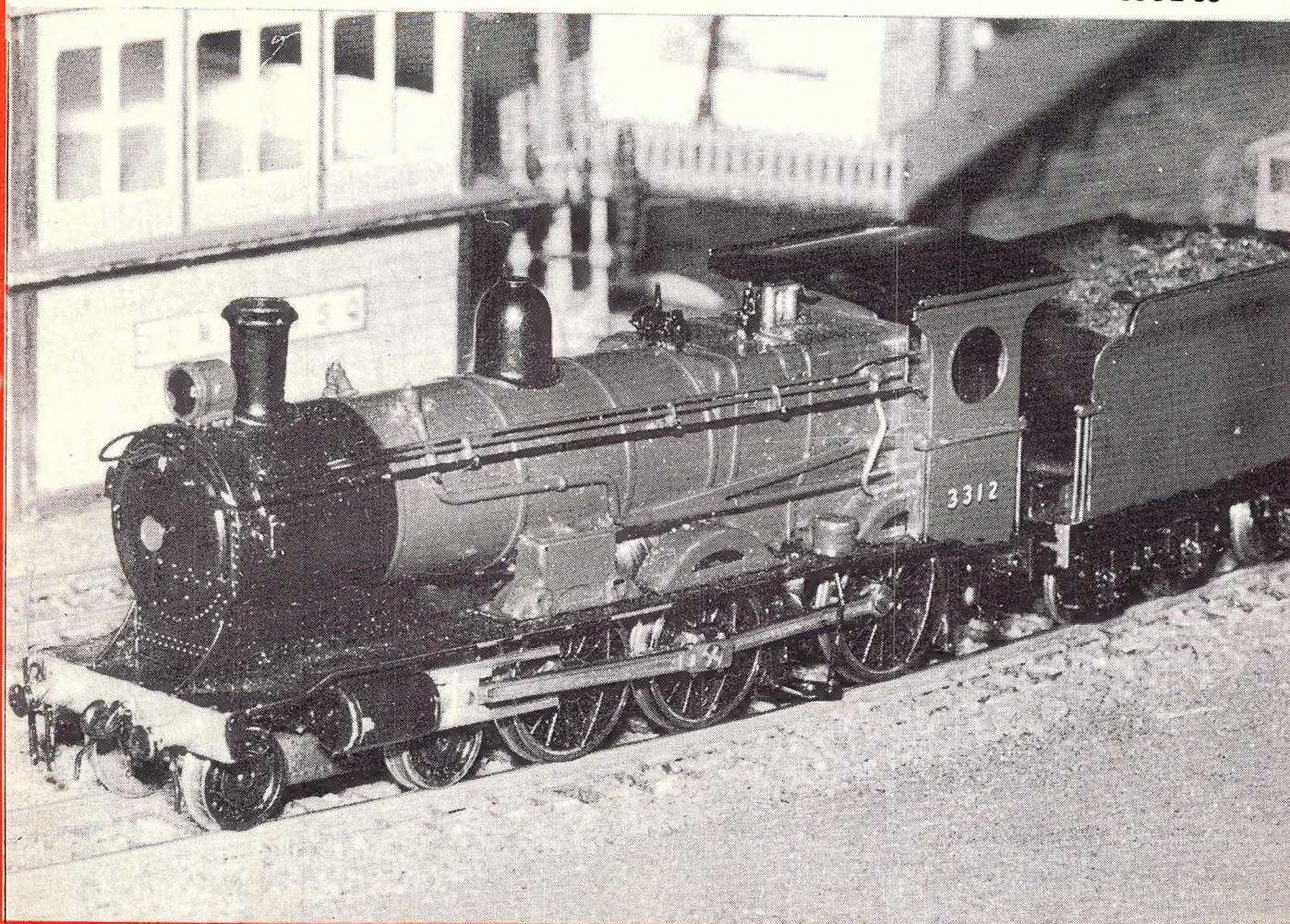
Registered at the G.P.O., Sydney, for transmission by post as a periodical — Category B

Recommended retail price only.



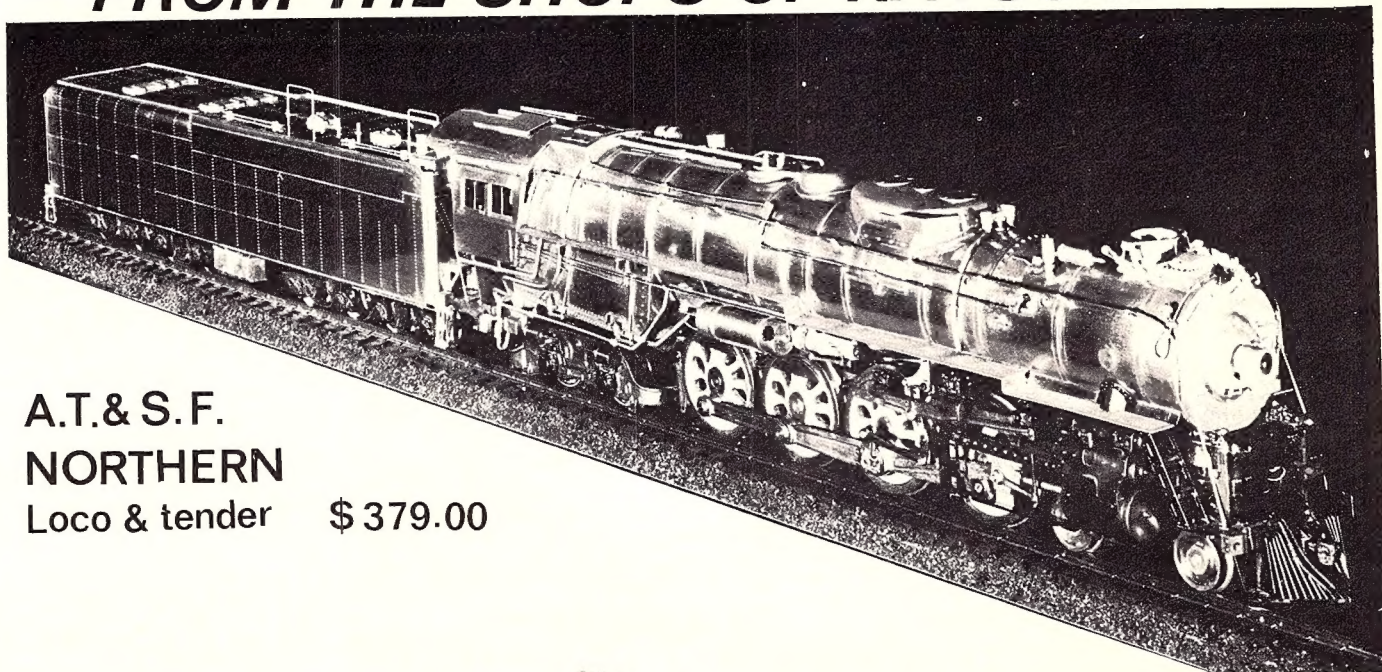
Australasian Model Railroad Magazine

MARCH/APRIL 1972 VOL. 5 NO. 8 ISSUE 55

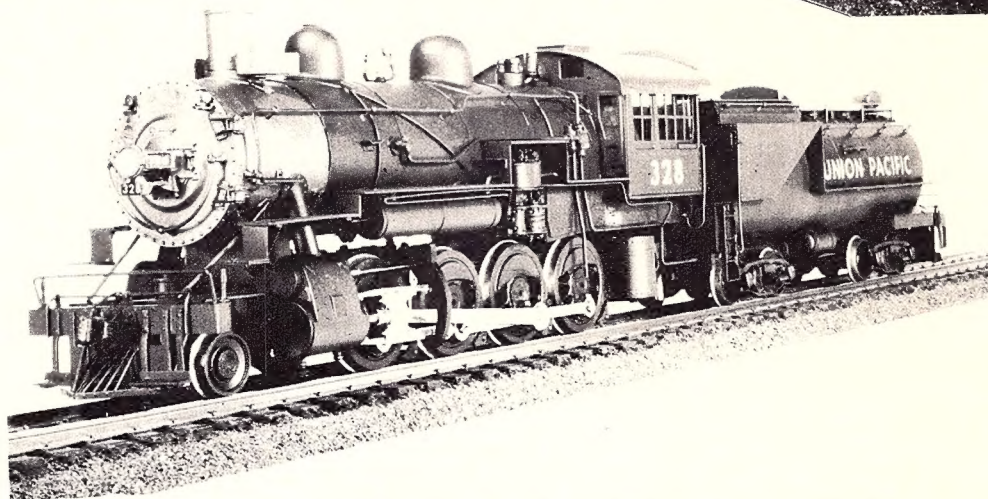


NEW MOTIVE POWER FOR O GAUGE

- FROM THE SHOPS OF KATSUMI

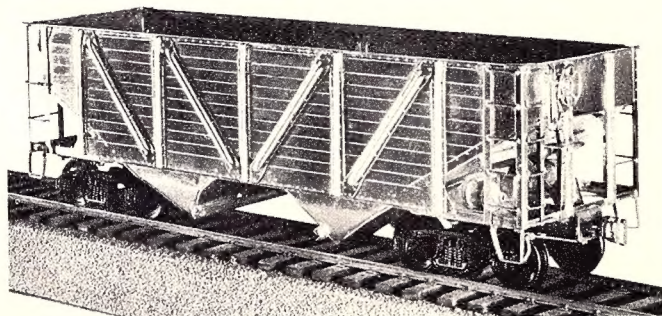


A.T. & S.F.
NORTHERN
Loco & tender \$ 379.00



U.P. 2-8-0 'HARRIMAN'
CONSOLIDATION
& TENDER: \$284.50.

TO MATCH THE ABOVE FINE
NEW LOCOMOTIVES NOW
AVAILABLE TO 'KING
GAUGERS', K.T.M. ALSO
INTRODUCES THIS NEW
ROLLING STOCK ITEM :
OUTSIDE BRACED,
COMPOSITE TWIN HOPPER
(LESS TRUCKS) \$31.35.
SPRUNG TRUCKS TO SUIT :
\$3.20 PR.

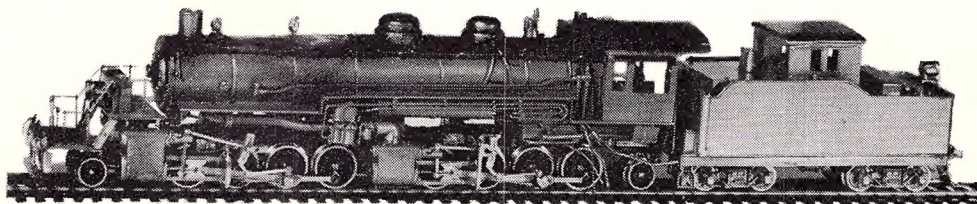


NEW FROM THE SHOPS OF

NWSL

HO WEYERHAEUSER TIMBER CO. CLASS '200' 2-8-8-2: In 1928 Weyerhaeuser Timber Co. needed bigger power than their 2-8-2 and 2-6-6-2 lokies. An inquiry was made to Baldwin for a 2-8-8-2 for 60 lb. rail. No. 200 was built in 1929 and No. 201 in 1933. The No. 201, priced @ \$139.00, has now almost sold out. The No. 200 model, pictured here, is now available @ \$147.00.

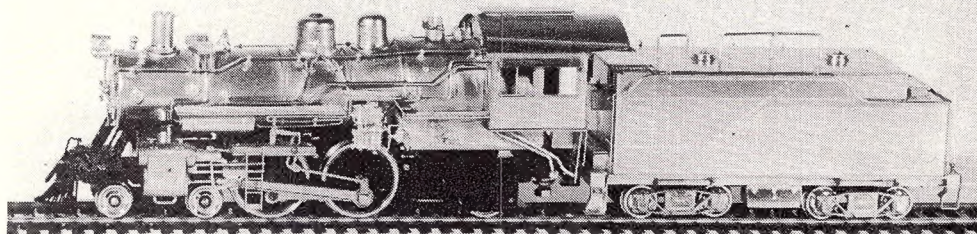
Lost wax details, pre-blackened frame, removable spark arrestor, ball bearing motor; 48" drivers, all powered and sprung; length 12.4", weight 26 oz. Recommended radius 26", minimum 22".



NEW FROM THE SHOPS OF

BALBOA
PRECISION ENGINEERING

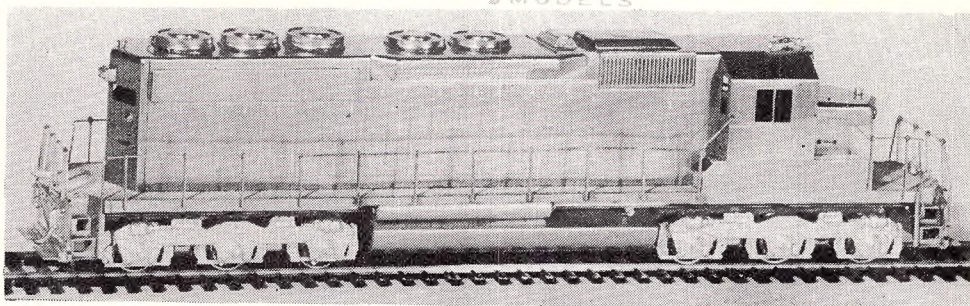
HO A.T. & S.F. '1480' CLASS 4-4-2: Baldwin originally built the 1480 Class Atlantics for the Santa Fe in 1910. Balboa's model — long wanted again, after an absence of many years — features a heavy duty 5-pole motor and sprung drivers. A large number of lost wax and coined parts, including a detailed blackhead, put this engine in a class by itself. Length 10", weight 13 ozs. Minimum radius 18". PRICE: \$96.00



NEW FROM THE SHOPS OF

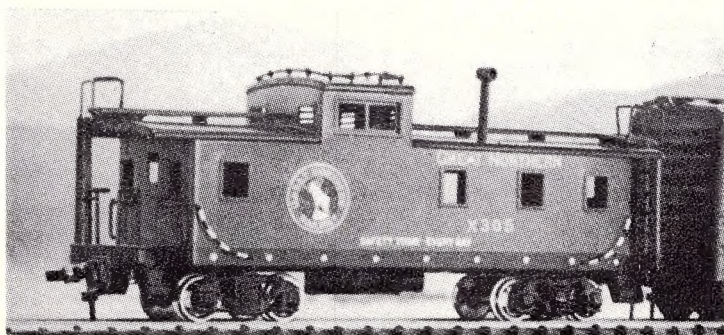
ALCO
MODELS

HO SD-40 DIESEL ROAD SWITCHER: Of low nose pattern, this modern road engine is designed for every class of service on the up-to-date pike. PRICE: \$67.00.



NEW FROM THE SHOPS OF

Tenshodo
"THE MARK OF QUALITY"



GN STEEL CABOOSE with trucks. Painted and lettered. Price \$33.85.

SHOP OPEN FRIDAY NIGHT
TO 9 P.M. CLOSED
SATURDAY.

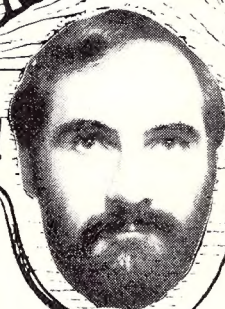
THE MODEL DOCKYARD PTY. LTD.

216-218 SWANSTON STREET, MELBOURNE. 3000

663-3505

NOTICE BOARD

by **Grahame Dodd** of **Micro Models**



SCENIC ARTIST,
ELECTRONICS CONSULTANT,
RAILFAN

MICRO MODELS (SHOP 10a)
WESTFIELD PLAZA,
HORNSBY, N.S.W.
(02) 476-2588

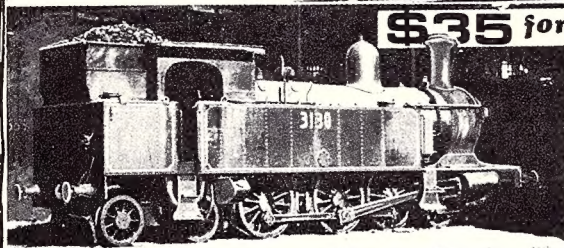
We stock... **PROTYPE** Australian KITS

C36 **\$55**

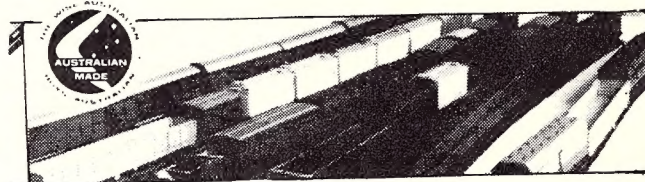
Note the CORRECT BOILER SHAPE

Don't miss this one!

If you failed to get a Z-19 act now before the C.36 and C.30 disappear. SECURE your ProTYPE C.30 & C.36 Models, today... order them with a deposit. You just can't pass-up these fly wheel - driven authentic models.



\$35 for C30



BACHMANN N

about your supplies of LIMA, RIVAROSSA, PECO, TRI-ANG, BACHMANN, ARNOLD-RAPIDO, CON-COR, MINI-TRIX, ATLAS, and etc. in 'O', 'H' and 'N' Scales.

SPECIAL! "DOCKSIDER" SET
0-4-0 loco, box car, 3 dome tank car, gondola and caboose
All N Gauge sets include 25" x 16" track oval, rerailers, wires, etc.

\$17.95



Let us quote

Let us advise and quote you on designing and constructing a complete scenic operating railway. We have a large range of second-hand material at less than half price to get you started. Being Australia's smallest hobby shop, we naturally stock an extensive range of N gauge.

Scenic TT layout, size 8' x 4'; illuminated and includes a H and M Duette transformer, two locomotives and a large amount of rolling stock. Phone 476 2588.



VOLLMER

PECO

ATLAS

GAUGE

ARNOLD rapido

Australasian

Model

Railroad

Magazine

The Official Journal of SCMRA in Australia; incorporating the Yardmaster, the Bulletin of the Sydney Model Railway Society.

- 5 COMMENT
- 6 SHOP DETECTIVE
- 6 REVIEWS
- 8 HOc — The NSW's Exhibition Layout
J.G. Beckhaus
- 11 SEVENTY YEARS OF MECCANO (Part 2)
K. McCarthy
- 16 WHAT STARTS ANYONE PLAYING TRAINS?
Frank Broome
- 19 BASIC ELECTRONICS (Part 1 — Resistors)
George Giraldi
- 20 SCRAPS
- 21 A PROTOTYPICAL CONVERSION
R.A. Gallagher
- 23 PROTOTYPE PLAN
NSWR 20 Class Steam Locomotive
- 24 CLUB CAR
- 25 MAIL BAG
- 25 YARDMASTER
- 26 HOBBY SHOP DIRECTORY
- 26 MARKET PLACE

EDITOR-IN-CHIEF

ASSOCIATE EDITOR

ASSISTANT EDITORS

ART DEPARTMENT

ADVERTISING

CIRCULATION AND DISTRIBUTION

PUBLIC RELATIONS

CORRESPONDENCE

R. Merriman

R.G. Kable

R. Wurlod, G.S.B. Smith

J.J. Bevan

T.N. Carpenter, J.G. Beckhaus

A.E. Hunt

N. Prince

P.O. Box 204, Kings Cross, N.S.W. 2011

Published bi-monthly by S.C.R. Publications, P.O. Box 204, Kings Cross, N.S.W. 2011, for the Southern Cross Model Railway Association Inc. All rights reserved. Registered at the General Post Office, Sydney, N.S.W. for transmission by post as a periodical. Category B. Printed by Publicity Press Ltd., 29-31 Meagher St., Chippendale, N.S.W. 2008. Subscription by mail: \$1.80 Aust., N.Z., T.P.N.G. Elsewhere — \$A2.80 per annum. Make cheques, etc., payable to S.C.R. Publications, Sydney, N.S.W.

comment

We may be accused of hammering an old theme to death, but this theme bears repeating. Again we are appealing for articles from you, the readers, and to back up the appeal, I will describe how the magazine is produced.

The process begins when the articles (and advertisements) arrive at the Post Office — a random and often sparse occurrence. It is corrected and re-written where necessary and then directions for printing (type size and column width) are written in and the copy for one issue is passed on to the printer. The headlines and other display type is set up by the printer, who prints two or three proof sheets. The text is set using an IBM 72 Composer, which is a kind of glorified electric typewriter which, by means of an inbuilt memory, can "justify" copy — that is, give a straight right-hand margin as well as the left-hand margin.

The articles are typed out on a long strip of glossy art paper and, with the display type, it is returned to us. At this stage the work begins. The articles have to be cut out and pasted down on a "layout block"; a special sheet of ruled card, the same size as 4 pages of the magazine. They have to be pasted down perfectly straight, because it is from that "paste-up" that the printing plate is made. At this stage the format of the magazine must be decided upon, and a not inconsiderable amount of artwork for advertisements done. Headlines must also be pasted down, and spaces left for photos and drawings, with reductions and enlargements calculated. The finished paste-ups are taken to the printer who makes a photographic negative of them and the photos, which are first enlarged or reduced to suit, and "half-toned" (converted to dots — 100 to the inch) are stripped in. The offset printing plate is made from this negative by placing it over a light-sensitive aluminium sheet and exposing this to a battery of lights. The clear spaces on the negative allow the light through and the plate is hardened wherever the light hits it. This process is very time consuming, and is only used because it is far cheaper than the conventional linotype process.

Obviously then, we have the ability to produce a high quality magazine, but we do not have the time to write it as well, so keep those articles rolling in.

R.K.W.

on the cover

Fr. Robert Ebbs' 3312 on his exhibition layout at the Dickson Public Library (see Club Car this issue).

shop detective

A welcome addition to the hobby shops of Perth is The Loco Shed of 346 Wellington Street, Perth. The proprietor Jeff Pearson opened this shop in mid 1971 after operating from temporary premises at Watermans Bay. The Loco Shed as its name implies caters exclusively for model railroad enthusiasts and has a wide range of stock to suit the hobbyists of the major gauges HO/OO and N, while some stocks of larger gauges has been seen on the shelves. Stocks held include complete sets, locomotive/rolling stock units, kits and components for scratch builders. Famous name stocks held include Athearn, Roundhouse, Peco, Airfix, Lima, Rivarossi, Atlas, Flieschmann, Triang and our own Australian manufacturers such as Friedmont, Prototype and Sentinel. Many other brands of stock are held covering all branches of the hobby. Jeff is always willing to assist the modeller with special problems whether it be a scratch builder wanting components requiring special ordering or the junior modeller short of cash. To assist the latter Jeff has a range of good quality second hand stock of brands like Hornby-Dublo, Triang and Trix in addition to lower priced but quality new stocks. Jeff has a great knowledge of railway modelling and his advice is always helpful, especially for the junior modeller and a visit to The Loco Shed is always worthwhile.

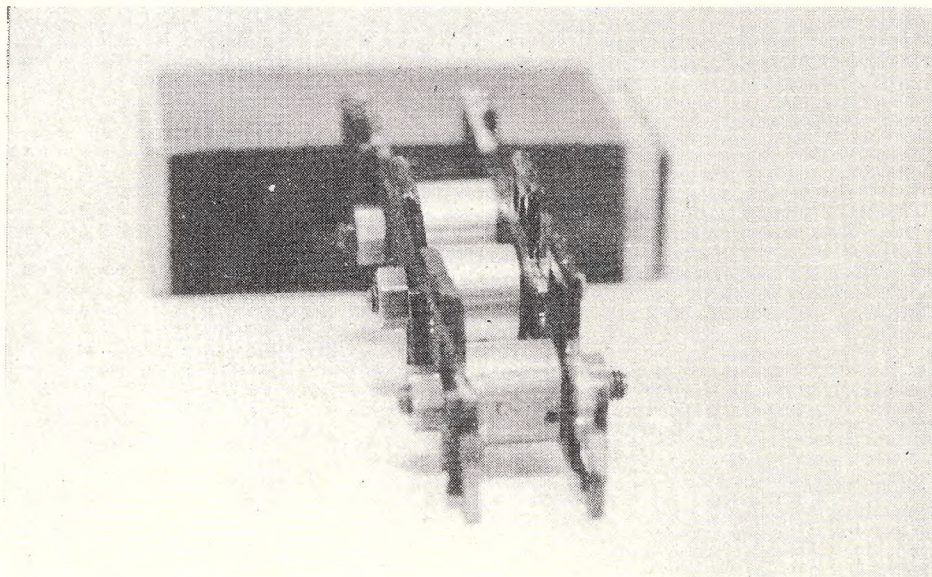
EAMES SPACING JIG. Available from The Model Shop, 24 Tudor Rd., Reading, RG.1 inh, United Kingdom. Price 50p + 20p postage.

There are three jigs supplied with locating spindles and nuts and a detailed instruction sheet. The spacing jigs are precision manufactured aluminium rods 3/8" wide with 1/8" holes centrally drilled. Used on HO locomotives main frames the jigs are positioned between each frame and held in position by the locating spindles which are positioned through the axle holes. The nuts on the spindles are tightened by pliers etc., then the frames are ready for positioning and soldering using 3/8" wide

reviews

frame spacers. A very useful piece of equipment for the scratch builder which will ensure that loco frames are perfectly square and accurate. It is a pity that this jig is not available locally.

R.A.G.



Bachmann N gauge "Docksider" train set. Our sample from J. Searle & Sons, 315 Pitt Street, Sydney. Price: \$17.95.

The set is handsomely presented in an orange coloured plastic display and storage box with a clear plastic lid, hinged at the

back of the box. In it is an essentially well detailed set comprising an 0-4-0 locomotive (in B & O), a 41' steel box car (P.R.R.), a 42' steel gondola (N.Y.C.), a 42' three dome tanker (Mobilgas), a caboose (B & O), a 25" x 16" oval of track, two rerailers and connecting wires.

The loco is the "Docksider" 0-4-0 saddle tank in B & O livery, with full operating valve gear — unusual in small N gauge locos. Our sample had had both side rods broken off, but this is probably an individual fault. The cab detail is good, but the boiler and air pump leave a little to be desired.

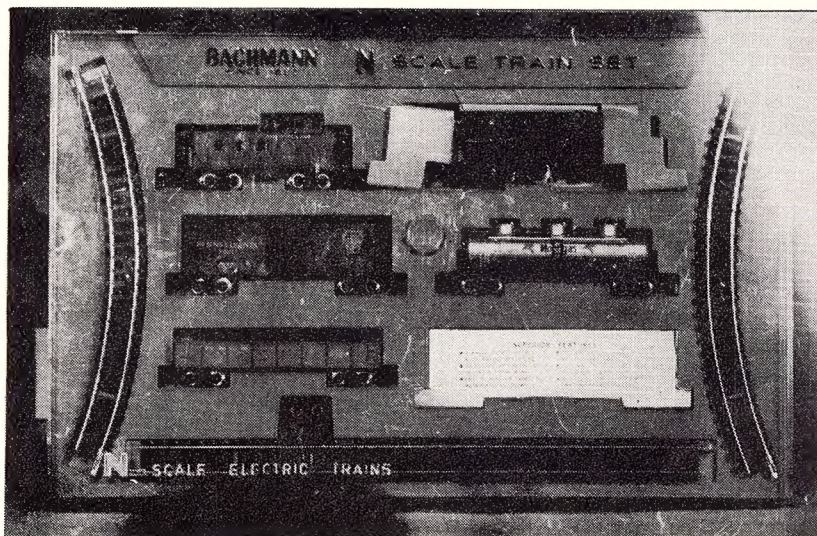
The caboose, carrying the B & O road name won my heart with its colouring and simple detailing which is, nevertheless, very good. Detail on the rolling stock was of a uniform medium quality, with rivet- and end-detail worthy of extra mention. The cars have minimal underframe, but they do, at least, have some. The heralds and other printed detail is the manufacturer's standard high quality silk screening, but legibility suffers in the smaller (under 0.5 mm) work.

All vehicles are fitted with Delrin trucks and metal wheels and all have spring Delrin couplers, of the standard N gauge type.

On test, I found that the loco was a little under-powered on even slight grades, but ran happily, if slightly warmer, on pulse-power rather than on smoothed DC.

The set is accompanied by a lifetime guarantee and a comprehensive instruction manual which contains detailed exploded diagrams of the locomotive. All in all, the set is good value for those wishing to begin in N gauge. However, it should be noted that all components are available separately.

C.S.



- "DESTINATION" series
(illustrations of trams with details of each class)
- No. 5: DESTINATION 'VALLEY' — Brisbane electric cars (2nd Edn.) 60c
- No. 31: DESTINATION 'CIRCULAR QUAY' — Sydney elec. cars (3rd Edn.) 75c
- No. 41: DESTINATION 'CITY' — Melbourne (MMTB) elec. cars (3rd Edn.) \$1
- No. 42: DESTINATION 'EAGLEHAWK' — Ballarat, Bendigo, Geelong (2nd Edition in preparation) 75c
- No. 51: DESTINATION 'GPO' — Hobart, Launceston 75c
- No. 61: DESTINATION 'PARADISE' — Adelaide elec. cars and t'buses 60c
- No. 71: DESTINATION 'SUBIACO' — Perth, Fremantle, Kalgoorlie, Leonora (2nd Edition) 75c
- "TRAMWAY HISTORY" series (fully illustrated)
- No. 102: AUSTRALIAN TRAMWAYS — Illustrated review (in preparation)
- No. 131: THE NEWCASTLE TRAMWAYS — complete history (in preparation)
- No. 142: THE BRIGHTON ELECTRIC LINE — VR trams, Beaumaris horse cars (3rd Edition) 75c
- No. 153: THE ESSENDON TRAMWAYS — Illustrated history (2nd Edition) 40c
- No. 172: THE FREMANTLE TRAMWAYS — complete history (in preparation) 40c
- "DE LUXE" series (hard covers, quality production)
- No. 331: THE AGE OF STEAM — around NSW with a camera (ready soon) \$3.60
- "ALONG THE LINE" series (railway scenes, mostly steam)
- No. 500: ALONG THE LINE TODAY — all states, present day (ready soon) 75c
- No. 501: ALONG THE LINE No. 1 — all states 60c
- No. 529: TWILIGHT OF STEAM IN QUEENSLAND (ready soon) 75c
- No. 531: ALONG THE LINE IN NEW SOUTH WALES 60c
- No. 541: ALONG THE LINE IN VICTORIA 60c
- No. 551: ALONG THE LINE IN TASMANIA (ready soon) 75c
- No. 562: ALONG THE LINE IN SOUTH AUSTRALIA (Book 2) 60c
- No. 571: ALONG THE LINE IN WESTERN AUSTRALIA 60c
- No. 591: ALONG THE LINE IN NEW ZEALAND (ready soon) 75c
- "RAILWAYS TODAY" series
- No. 601: AUSTRALIAN RAILWAYS TODAY (1967 Edition reprinted, larger pictures. Ready soon) \$1.20
- No. 621: QUEENSLAND RAILWAYS TODAY (in preparation) 75c
- "RAILWAY HISTORY" series
- No. 711: THE NORTH AUSTRALIA RAILWAY (in preparation) \$2
- No. 731: THE FIRST HUNDRED YEARS — Goulburn railway centenary. (2nd edition) 75c
- No. 781: TRANSPORTING THE BLACK DIAMOND Book 1 — coal railways of Illawarra, central section \$1.50
- No. 782: TRANSPORTING THE BLACK DIAMOND Book 11 — coal railways of Illawarra, northern section (in preparation) \$2
- No. 784: TRANSPORTING THE BLACK DIAMOND Book IV — coal railways of Newcastle and Merewether (ready soon) \$2
- "ROLLING STOCK" series
- No. 831: PASSENGER CARS OF THE NSW (ready about August) \$6
- No. 902: BENCHWORK, BASEBOARDS & LAYOUTS — with diagrams 50c
- No. S1: MURRAY RIVER PADDLE STEAMERS — pictures and text 60c

New books and revisions of earlier titles are added to the range from time to time. All prices include postage — there is nothing extra to pay. Remittances payable to TRACTION PUBLICATIONS. Money orders payable at CANBERRA CITY: the full name of this office MUST be used. Orders and enquiries to:

**P.O. Box 438
Canberra City
A.C.T. 2601**

Traction Publications

AUSTRAL

recommend **PROTYPE**

N GAUGE NEWS has a lot of helpful hints on this scale, plus pricelists of the wide range in stock. Send 12¢ for sample copy.

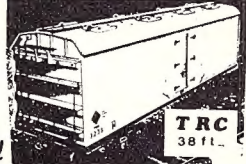
The issue now in hand charts suggested standards and clearances.

IN HO Always a full range of **SENTINAL** Australian items, and all **A.M.C. Co** lines. Brass locos in HO, & HO_{1/2} on hand. **ILLUSTRATED LISTS** HO-25¢ & O-10¢. N-25¢

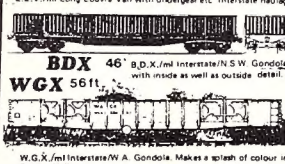
BOGIE VEHICLES (without trucks) \$4.50 ea. (unpainted)
M.L.V./mil Milk Louvre Van A twin version kit with two roofs.
Interstate



T.R.C./mil Too Bunker Refrigerator Car with Rivet and other details Interstate Silver or Dark Grey.



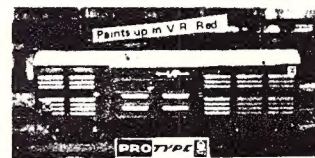
L.L.V./mil Long Louvre Van with undergear etc. Interstate haulage



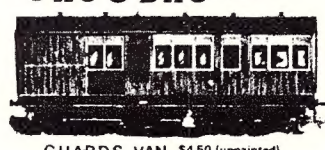
W.G.X./mil Interstate/W.A. Gondole. Makes a splash of colour in Golden Yellow.

VLX 40 ft.

V.L.X./mil Interstate/V.R. Louvre Van



SHG & BHG 30 ft.

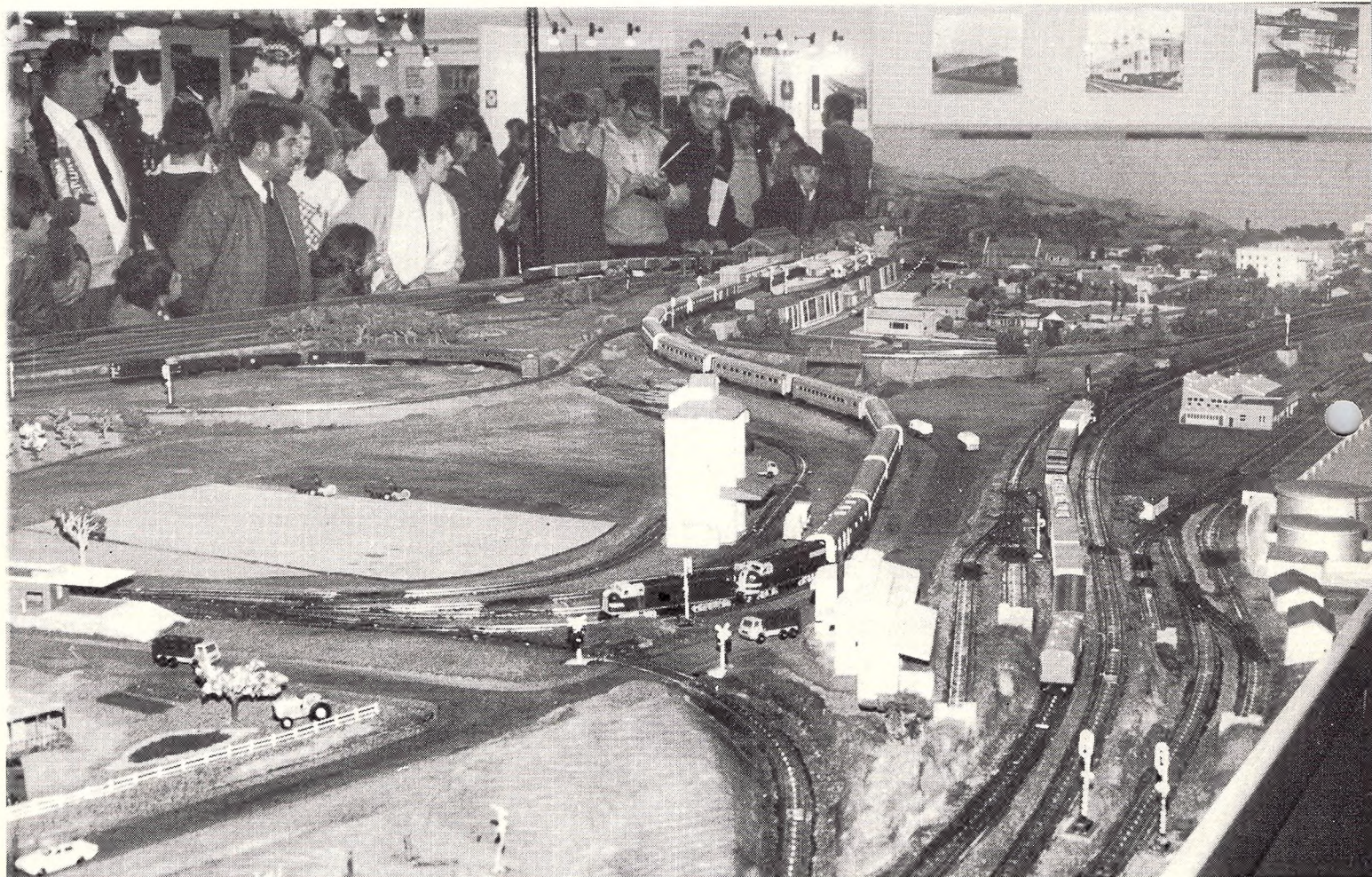


GUARDS VAN \$4.50 (unpainted)

all popular brands
complete N scale coverage
brass locos

Austral Modelcraft

101 Laura St EKIBIN Qld.
Mail to: P O Box 60 ANNERLEY 4103



These photographs were taken at the Sydney Trade fair 21st August 1971.

1. The main part of the layout with the city scene and the control room at the back. A 44 and a 42 class haul the 'Indian Pacific' past the wheat terminal area. A pity of Flash photography is that the centre stub contact is more obvious in the photograph than when viewing the model.

2. The suburban station with the double deck interurban in the station as the suburban double deck train leaves the station.

3. The Indian Pacific passes the country town on its journey from coast to coast.

4. The Intercapital Daylight passes the marshalling yard while an interstate freight train enters the suburban station. A local freight waits on one of the crossover branches.

5. A close up view of some of the wagons while shunting operations are carried out at the milk depot.



HO c is the name given to the New South Wales Railways new exhibition Model Railway. The main Layouts in use in the past have been O gauge and in common with the small HO layouts have been basic oval plans, but with this new layout sufficient space has been available to form interesting involved track routes.

This layout is 32' x 12'; divided into 12 8' x 4' sections. An enclosed control room is across one end of the layout and storage sidings are located behind the control desk. These sidings are only used for night storage and are not required for operation as all trains run continuously.

The layout is divided into three routes. The basic main route is a double track main country line in the form of a folded 'dog bone' plan. There are three crossover branches on this line that can shorten the main line and add interest to operations by changing the order of the trains on the line so the viewer does not get the impression of the same trains following each other.

The second route is a small single track oval for commuter trains. This oval has one passing loop which enables two electric trains to operate alternately.

This third route is also an oval around the outer end of the layout. It is a single track Freight line with a marshalling yard on one side of the layout and a bulk loading terminal on the other.

There is one set of crossovers between the country main and the commuter loop and three sets of crossovers between the freight line and the country line which also give access to and from the country line to the bulk loading terminal and the marshalling yard. These crossovers also add to the variety of operations that can be carried out.

There are four stations along the main route. At the control end of the layout is a large city station and a suburban station, both are shared with the commuter loop. There is a city scene at this end of the layout between the two stations. Across the other end of the layout is a country station with a country town scene. A small country station is also located near this town.

The middle section of the layout is a country scene. A wheat silo loading terminal and a milk depot is located along the main line in the 'country'. A small Locomotive depot is located at the marshalling yard and the city station.

The track is Peco with mainly Peco points, but some Marklen points are used in the marshalling yard. Centre stud contact pick up is used and the main line radius is approx. 2' with 18" on some branch lines. The gradients are 1:32.

Fully automatic colour light signals control the trains. Manual control is also available in the form of Cab control with two controllers for the main line switched by PMG lever keys. The centre position is full voltage for automatic operation. Only the sections required need be switched to manual when special control is needed. Marklin uncouplers are installed to permit remote control shunting and locomotive changing.

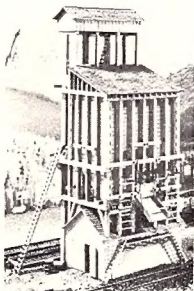
Marklin couplers and wheels as well as Locomotive mechanisms are used but operate on 16VDC.

The rolling stock is scratch built with passenger trains consisting of: Indian Pacific, Southern Aurora and Intercapital Daylight. The Aurora and Daylight cars can also be used to form the Brisbane Limited. Other passenger trains are DEB Airconditioned rail car set, a 600.2 car rail car set as well as Double deck suburban and interurban sets. Freight stock represents a range of NSW wagons and brake vans as well as some interstate wagons. The diesel locomotives are mainly Marklin F7's with the bodies modified to give good representations of 42, 421 and 44 classes. There are also two Bo-Bo electrics modified to 46 class locomotives.

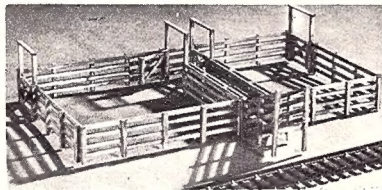
THINK OF MODEL RAILROADING THINK



Campbell Scale Models



Cooling Station 14'25



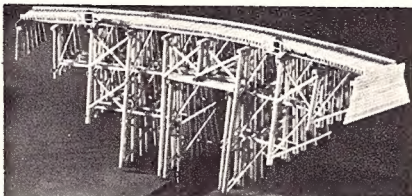
Cattle Loading Pens 2'60



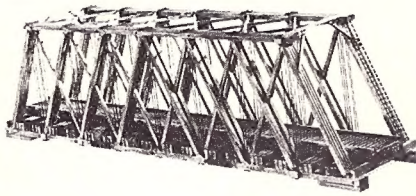
9'10



Pump House 5'90



Tall Curved Trestle (110') 7'80



Howe Truss Bridge (14-9/16) 10'35



Wayside Freight Station 7'15



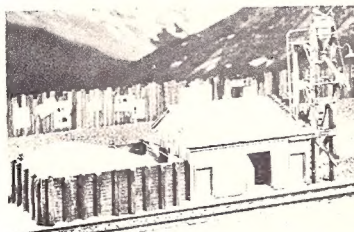
Oil Derrick 9'10

TIES

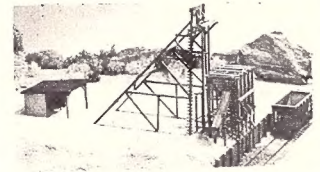
Standard ties	1000/	2'60
Turnout & Crossover	250/	2'60
Bridge ties	500/	2'60
Narrow Gauge	1000/	2'60



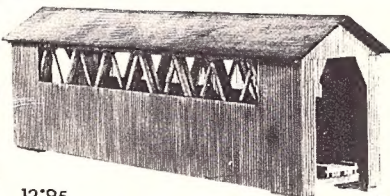
Wooden Barrels (12) *80
Oil Drums, unpainted (12) *80



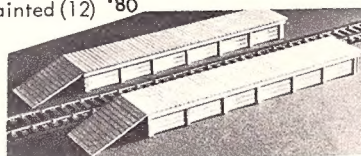
Sand House 9'10



Mine Head Frame 7'15



12'95
Covered Bridge (14-21/32)



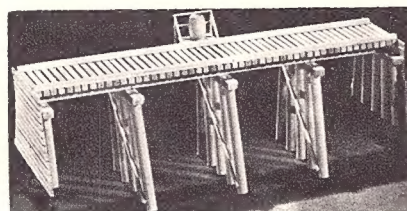
Freight Platforms 2'35



Thru Plate Girder
5'90



Campbell Supply Co. 11'65



Open Deck Pile (50') 3'30



1875 Firehouse 6'25

CHOOSE FROM

60 Campbell Scale Models

MODEL CENTRE

55 PULTENEY STREET, ADELAIDE. PHONE: (082) 23 5069

CATALOG \$1.50

PTY. LTD.

SEVENTY YEARS OF MECCANO Part 2

Anthony Hordern & Sons Ltd, Universal Providers, Sydney.

MECHANICAL TRAINS, &c.



QT 47—Meccano Tin Printed Train. Well made, and includes full set of Rails—
Duplicate parts of all Meccano Trains can be supplied. 20/-

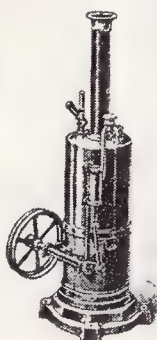


QT 76—English Made Mechanical Train Sets, with Rails, as illustrated ... 4/11. 6/6

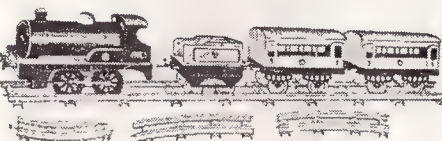
QT 44—Model Steam Engines, similar to design. Each engine is well made and reliable ... 11/6
Horizontal type ... 11/6



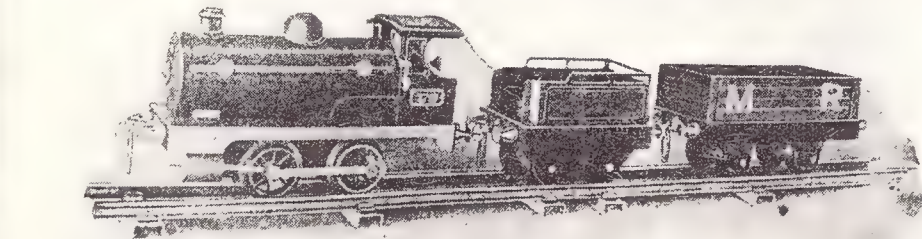
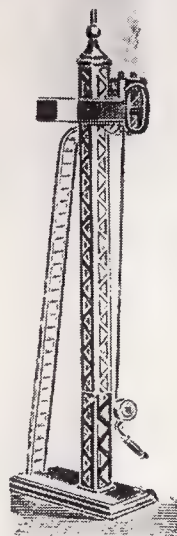
2 Cars—Clockwork
QT 50—American Flyer Trains. Heavy Iron Engine fitted with quality Spring. Complete with Tender. 2 Cars and full set of Rails—
25/-, 29/6, 47/6, 65/-



QT 525—Working Model Railway Signal, complete with Lever ... 4/-



QT 312—Meccano Zulu Passenger Train. Engines fitted with Reversing Gear and Starting Lever. Complete with full set of Rails ... 27/6, 37/6
Also No. 1 Passenger Set ... 37/6, 50/-



QT 66—Meccano Goods Train, Reversing Gear and Starting Lever fitted to Engine. Complete with set of Rails 37/6

308

Anthony Hordern's catalogue of 1923. The Hornby "M" loco at the top of the page remained in production until 1928 being replaced by later MO and M1 types. The "Midland Railway" goods wagon in the bottom illustration is one of the original Hornby items with nut and bolt assembly

K. McCARTHY

Meccano Developments

The original three sets in the series of "Mechanics Made Easy" had expanded up to Set No. 6 by World War 1, while set No. 7 was the acme of the series by the early 1920's. Until 1926, Meccano parts were all electro-plated to a silver grey colour, but to celebrate the 25th anniversary of the Company a range of coloured parts was introduced. The 1930's formed a period of transition in Meccano production. The old numbered sequence 00,0,1 to 7 gave way to an alphabetical range with new instruction books and an increased set of parts in 1936. This new series was classified O,A,B,C,D,E,F,G,H,K & L, and the transitional accessory outfits Oa,Aa,Ba,Ca etc. In addition conversion outfits were available to bridge the difference in parts between the old range and the new one.

This new scheme was carried out under the guidance of Mr. Roland Hornby and consisted of parts with new colour combinations and flexible metal plates. The alphabetical sequence must have proved too cumbersome, especially due to the absence of sets "I" and "J", for in the 1938 catalogue the alphabetical nomenclature reverted to a new numerical series 0,1,2 etc. to 10. This final pre World War II change resulted in some further parts changes and colour alterations which remained, with only some later minor changes until the mid 1960's.

The sets for the Australian market carried a special box label showing a gigantic Sydney Harbour Bridge constructed with Meccano parts, but this was very disappointing to small boys receiving their first low numbered set which had nowhere near enough parts to build anything approaching the structure on the box lid.

In their pre World War II form the flexible metal plates were coloured blue with thin gold diagonal stripes adopted from the scheme of parts made in the French Meccano branch factory. Through the 1920's and 1930's Meccano Ltd. operated another foreign factory at Elizabeth N.J., U.S.A. The only items on sale in Australia from these two branch factories were several "O" gauge items of French and American outline rolling stock and some Dinky Toys from France. The French factory at Bobigny reopened after World War II and supplied some Dinky Toys and HO gauge items on the Sydney market.

High Point of Production

The 1938-9 Australian catalogue perhaps marks the high point of Meccano production. As far as the "O" gauge models are concerned the old range listed earlier in the article was completely replaced by locos of more modern outline between 1928 and 1931 and the new range continued to expand right until the eve of World War II.

Before listing the "O" gauge range of the 1930's mention must be made here of a rare tin printed loco, classified No.M1, which was featured in only two Australian catalogues, those for 1929-30 and 1930-31. The old "M" loco of the 1920's was

replaced by this green 0-4-0 tender engine, bearing the number 2930 in 1929. This new item carried a small mechanism (non reversing) similar to that later used in the "MO" series and was not fitted with connecting rods. It powered three sets:—

The M1, a two car passenger set; M2, a three car passenger set and M3, a goods set. This series was replaced in the 1931-32 catalogue by the cheaper "MO" series and the reversible "M1" type.

Following is a list of "O" gauge locos

available from the Hornby series during the 1930's. The dates have been obtained from Australian catalogues, and unless otherwise mentioned, the items have outside cylinders with connecting and driving rods, mated with four wheel tenders and are reversible.

Clockwork	Electric Codes	Description	(2) In production
MO	—	0-4-0 + tender. No con rods, non rev.	1932—1936
MO	—	0-4-0 + tender. con. rods, non rev.	1936—WW2
M1	EM120 & EM16	0-4-0 + tender. Elec= non rev.	1931—WW2
M3	EM320 & EM36	0-4-0 tank, No con rods.	1931—1937
M3	EM320 & EM36	0-4-0 tank. Con rods, outside cyl.	1938—WW2
O	EO20 & EO6	0-4-0 + tender. Con rods, inside cyl.	1931—1937
O	EO20 & EO6	0-4-0 + tender. Con rods, outside cyl.	1938—WW2
O	—	0-4-0 + tender. con rods, non rev. "Silver Jubilee" MO mechanism	1937—WW2
1	E120 & E16	0-4-0 tank	1931—WW2
1	E120 & E16	0-4-0 + tender	1930—WW2
1 Special	E120	0-4-0 tank.	1930—WW2
1 Special	E120	0-4-0 + tender	1930—WW2
2 Special	E220	4-4-0 + 6 wheel tender. LMS= Compound, GWR= County of Bedford, LNER= Yorkshire/Brabham Moore SR= "L1= inside cyl.	1929/30-WW2
2 Special	E220 & E26	4-4-2 tank. Inside Cyl.	1930—WW2
3C	E320 & E36	0-4-0 Metrop. elec box loco.	1927—WW2
3C	E320 & E36	4-4-2 + tender. English= 6 wheel "Nord" =8 wheel Tender style changed over period. Nord= "Riviera Train", LMS= "Royal Scot" LNER= "Flying Scotsman", SR= "Golden Arrow". GWR= "Cornish Riviera".	1928—WW2
4C	E420	4-4-0 + 6 wheel tender. SR= "Schools Class".	1938—WW2
—	No number.	4-6-2 "Princess Elizabeth" LMS	1938—WW2
—	LEC1/LEC120	0-4-0 Elec. steeple cab, Swiss design with pantos. 20v	1933—1936
—	LE2/20	0-4-0 Elec. box cab, Swiss design with pantos. 20v	1933
—	No 1—6v	0-4-0 tank, per mag 6v	1929—1933
—	EPM 16	0-4-0 tank, per mag 6v	1934—1937

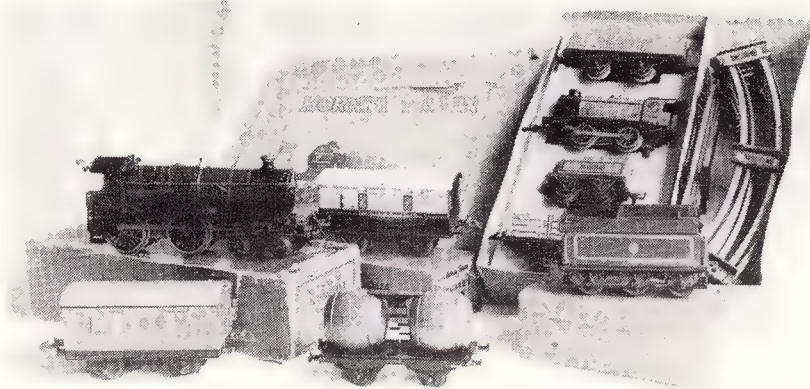
In the 1938-9 Australian catalogue the E420 "Schools" loco retailed for 5 pounds 5 shillings and 6 pence (\$10.55) with tender while the "Princess Elizabeth" sold for 11 pounds 10 shillings (\$23) with tender. This was at a time when the Australian basic wage stood at approximately 3 pounds 10 shil Prior to 1938, Hornby only marketed tin plate track in 9", 1 ft. and 2 ft. radii but with the introduction of the "Schools" and "Princess Elizabeth" series, third rail, 3 ft.

radius, steel track appeared in the catalogues.

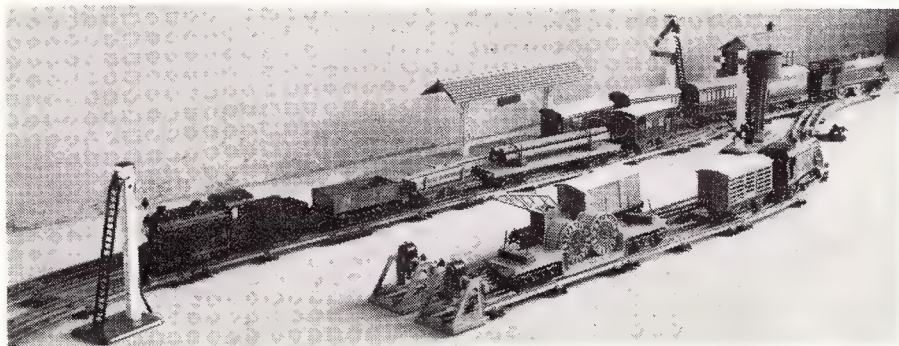
Other gems appearing in the 1938-9 edition were the Junior Meccano sets in the "000" and "X" series accompanying "Dolly Varden" doll's houses, Meccano speed boats, "Elektron" electric construction sets, "Kemex" chemistry experimental outfits, "Dinky Builders", and special aeroplane and motor car construction kits.

Hornby Dublo

The small scaled "OO" gauge train sets appeared for the first time in the 1938-9 Australian catalogue. Two sets were available in both clockwork and electric models with a limited range of lineside accessories. The larger set consisted of a 4-6-2 LNER locomotive "Sir Nigel Gresley" with an eight wheel tender and two articulated cars; while the other item was an 0-6-2 tank

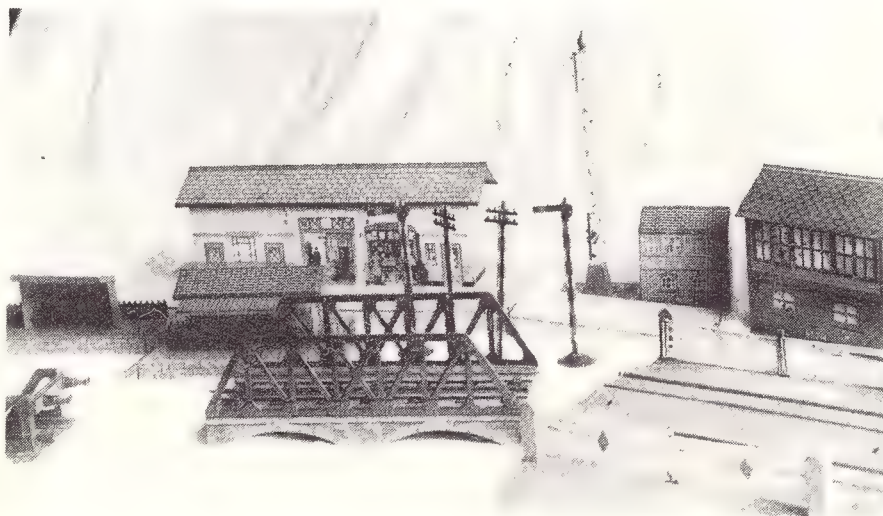


Pre World War II Christmas morning goodies! An early M1 clockwork set, GWR and LNER No 1 luggage vans, a Hornby French wine wagon, GWR No 2 Special clockwork loco and tender. K. McCarthy collection. Post World War II boxed "O" gauge tank and tender loco sets with the "Sir Nigel Gresley" 4-6-2 "OO" set in the foreground. B. Parle collection.



Hornby "O" gauge electric equipment on special double line track. LNER 4-4-2T loco E220, LNER E020- 0-4-0 inside cylinder loco, and an LMS E120 0-4-0 Special loco. B. Parle collection.

Hornby "O" gauge accessories showing the No. 1 signal box, the centre portion of the viaduct, a four gate level crossing, a double lamp standard and a large post World War II station. K. McCarthy collection.



engine with a collection of goods rolling stock. Track for this new system was "two rail" for clockwork and three rail for the electric version. The "Duchess of Atholl", an electric (only) operated 4-6-2 LMS locomotive with tender and two carriages made its debut in the 1939-40 Australian catalogue but further details of this are given later in the article.

World War II

The gathering war clouds resulted in a special Meccano set with khaki parts and a telescopic wooden gun barrel appearing on the market for Christmas 1939. This retailed in Sydney for 35/- (\$3.50) and enabled the construction of such war machines as anti-aircraft guns, tanks, searchlight carriers etc.

As World War II progressed the Meccano factory in Liverpool, England, gradually changed to war construction for the fighting forces. This change, however, was gradual, for as late as 1941, Meccano sets continued to be produced and a limited range of Dinky Toys were released from time to time on the British market. Due to the low priority of toys for available shipping space, exports to Australia practically ceased during 1940.

Clubs

Three clubs emerged under the guidance of Frank, and later Roland Hornby. These were the Meccano Guild in 1918, the Hornby Railway Company in 1928 and finally the Dinky Toy Club during 1957. The "Meccano Magazine", a bulletin launched in 1916 and still available each month, was the official organ of these clubs. Prior to World War II the first two named clubs flourished all over the British Empire and were generally formed in districts or within school organizations. These groups enabled boys with an interest in technical hobbies to meet in an atmosphere of mutual interest, to exchange ideas and to work on group projects. Although many of these clubs are still functioning some failed to be re-established when the British Commonwealth returned to independent peacetime pursuits.

Post War

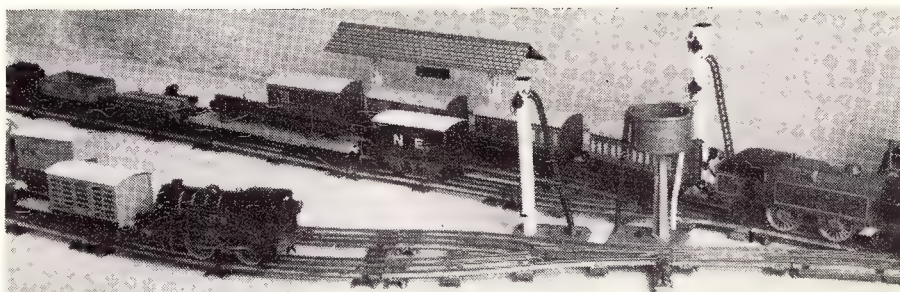
The "Meccano Magazine" promised that, with peace, the full prewar range would gradually return to the retail market. During Christmas, 1945 the Australian market was not to sample these delights, but in Britain a limited quantity of Dinky Toys and Meccano sets were released from the warehouse.

Dinky Toys reappeared in quantity in Australia for Christmas 1946 accompanied by Meccano sets 0 to 5. These sets were of 1941 wartime vintage with the blue flexible plates replaced by a plain red design. By the close of 1947 and by July 1949 the range extended to a maximum of four grades of clockwork sets in both goods and passenger models. The pre war bogie locomotives never returned to production. "O" gauge electric trains returned during early 1949 but appeared in only one grade in limited numbers and disappeared after Christmas 1950. Seven types of "O" gauge bogie rolling stock were available in July 1949 but had been removed from the Australian price list by May 1950. These were— Cattle truck No. 2.; Coach (compartment) No. 2.; Goods Van No. 2.; Timber Wagon No. 2.; High

Capacity Wagon; Trolley Wagon (well wagon); Breakdown Van and Crane.

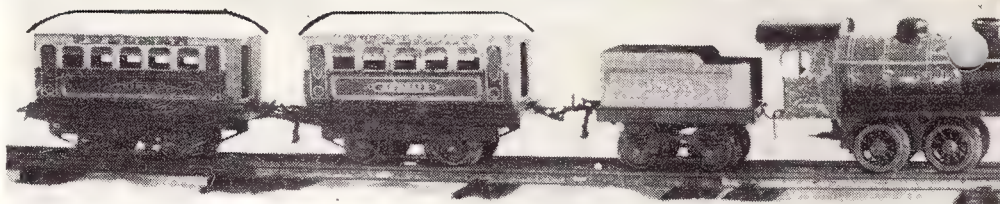
The accent in model railways now stood in favour of the smaller OO-HO size sets. Accordingly the pre-war electric "OO" sets, with slight alterations, reappeared in Sydney during November 1948 with a third model of a LMS 4-6-2 "Duchess of Atholl" accompanied by a six wheel tender and two LMS bogie passenger cars. The post war models carried different couplings to the pre war items; the 4-6-2 streamlined LNER pacific now had cut away sides and the simple pre war valve gear, now exposed, was altered to resemble the full size prototype; and the two car articulated LNER set was replaced by two separate coaches of similar body type.

The Australian 1939-40 catalogue featured the "Duchess of Atholl" as a new release in a single funnel design available as an electrically propelled model only. Mr. Jack Richardson, of Traction Publications, recently related how he visited the Meccano factory in Liverpool during 1940 where his attention was drawn to the "Duchess of Atholl" set on display. He remarked to his guide that he had seen that set earlier in the day in the window of a Liverpool model store. The guide replied that the shop model would have been a "Trix" pacific loco as the set at the Hornby factory was the only one assembled at that time and because of wartime conditions it would not appear in the shops until peace returned. The Australian sets advertised, therefore, in the 1939 catalogue, must have not reached these shores for another nine years. One point worth recording is that the photos of this model in the 1948 and 1949 Australian catalogues is of the single funnel pre war type with the post war double funnel poorly



Hornby "O" gauge electric equipment on special double line track. LNER 4-4-2T loco E220, LNER E020- 0-4-0 inside cylinder loco, and an LMS E120 0-4-0 Special loco. B. Parle collection.

Hornby "O" gauge M1 type loco of 1929-31 with a later tender and two "Pullman" coaches of 1938 vintage. K. McCarthy collection.



touched in.

The clockwork sets in "OO" gauge as well as the Meccano aeroplane and motor car outfits, the Junior Meccano range, Kemex and Elektron outfits together with

the Dolly Varden houses were all wartime casualties and did not return to the post war markets.

to be continued in next issue

ABOUT "TELETRAIN"

GEORGE GIRALDI

Do you have an electricians nightmare under your layout? Do you have umpteen blocks and sections and switches to enable you to operate? Are you sick of tracking a faulty or dry joint in your wiring? Are you fed up at watching your locos, passenger trains or guard van's lights dim and go out every time your train slows down or stops? If your answer is "yes" to any or all of these questions, and I bet it is, then your worries are over! Teletrain is here!

This is a completely new approach to an idea so old that the first one ever to use it was G. Marconi!

It is a form of radio control using a fase modulated carrier wave.

There have been other previous attempts, but they all failed because of lack of versatility, mobility, compactness and low cost.

We have not found yet any drawbacks on this system, which has been in use now for nearly a year.

The teletrain system consists of one or more transmitters (handheld, being only 5" x 2½" x 1½") fully solid state, terminating

with a twin PMG like jack plug at the end of a 3' cord, which gives you a mobility of about ten feet along your layout. To enable you to go even further a selection of four different types of twin PMG like jack sockets can be mounted anywhere along your layout, and connected to track, necessitating only one extra wire between them all.

The receiving end of the system consists of up to ten different minireceivers (½" x ½" x 1") installed in your locos. If you are lucky enough to own more than ten locos, all that is needed is to create one extra block or section (only one wire is needed). The power for the whole lot is taken from any old step down transformer: 240V to 17.5V ± 10%, connected to the track, which is energized at all times.

This is the only form of system capable of giving truly slow scale speeds coupled with full pulling power.

In actual operation, it's truly fascinating! Ten locos await assignment, your channel selector knob is rotated to select the required channel, from one to ten, the

speed is notched up and your loco moves slowly to pick up its train, couples and is off on its way.

This system, like any other, will not improve the running qualities of a loco in poor mechanical or electrical condition, but will enhance all of the good ones.

An extra bonus is the possibility of connecting any track side accessories straight to the rails.

This is the system that really puts you in the driver's seat of your loco!

Teletrain can be used by newcomers to the hobby and oldtimers alike. It is foolproof, shockproof and can not be shorted out. It eliminates kangaroo starts and will enable your trains to creep at snail's pace or highball, according to your schedule.

Minutes to install, hours of enjoyment. Warning! Do not attempt to operate a locomotive on this system if it has not been fitted with a minireceiver. It is harmful to a normal DC controlled locomotive and may cause serious damage.

J. SEARLE & SONS - ESTD. 1897

26 5737 315 PITT STREET, SYDNEY 26 5737

SPECIAL THIS ISSUE

THE MODEL TRAIN SPECIALISTS

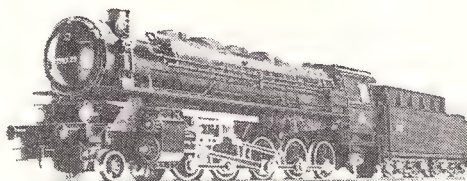
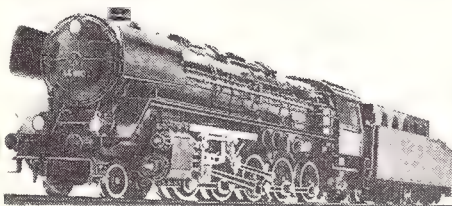
HAMMANT & MORGAN VICTOR SUPER POWER UNIT

TRANSFORMER/RECTIFIER
12V D.C. 2 1/4 AMPS OUTPUT

FITTED WITH AUTOTHERM
AUTOMATIC CUTOUT.
FULLY GUARANTEED.

NORMAL PRICE £16.85
SPECIAL \$6.55

SPECIALS — HAMO LOCOMOTIVES BY MARKLIN

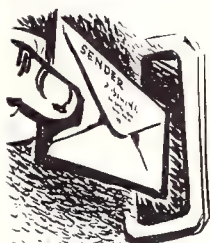


German Federal Railways Class 044 210-0 freight locomotive runs on Peco track, fitted with smoke generator. \$45.00

French National Railways (S.N.C.F.) Class 150X 2-10-0 freight locomotive. Realistic valve gear, smoke generator, \$42.00.

German made Seuthe Smoke units complete. Normally \$3.95 now \$1.00. Limited number only.

Another super special: Triang track cleaning fluid. Four bubbles less than half price 20c. (R.428).



MAKE SURE

Overseas costs are rising like rockets..... we must produce more here to be able to afford this hobby. Better Locos pulling better wagons and coaches. ProTYPE wants to be sure it produces enough for it's customers so write us now if you have purchased, or if you wish to order a ProTYPE authentic-model LOCOMOTIVE KIT. Make sure, (advise the name of your supplier). "Preference to past purchasers" is a fair deal, starting from now.

BUDGET WISELY. Do you realise that if you buy two (2) ProTYPE Model Locomotives you save enough money to buy a third Locomotive? Can you afford to be Collector and leave gaps in your collection when it is now possible to acquire a good representative collection of Steam Locomotive Models? All models made by ProTYPE are guaranteed.

SAVE MONEY with ProTYPE as you operate the best authentic kits in lifetime metal. Operate an All-States Train or name your own Railway.... operate ProTYPE's "four wheeler" hoppers, vans, and wagons where you are short of space. ProTYPE makes Twenty (20) pieces of R.S., Seven (7) "LOCOS" Forty (40) Accessory Pieces.

Write:

NOW

PROTYPE

P.O. Box 218,
Milsons Point, N.S.W. 2061.



ROLL YOUR OWN WITH PROTYPE

Well, for a start ProTYPE "invented" this metal. It can be shaped with the hand (try it), it saws, carves, files, solders (careful!) glues, — it gives you high reproduction detail, it's easy to work (most malleable metal we've met) and the surface cleans up beautifully with a suede-shoe brush. Dent's and dings fill with stop-putty or "Panel-Metal", if you don't like them. It paints well. It lasts a lifetime (therefore it makes the lowest priced kits) It.... Er.... can I come out, now?"

PROTYPE

ProTYPE Models, Milsons Pt., N.S.W. 2061

WHAT STARTS ANYONE PLAYING TRAINS?

FRANK BROOME

I suppose there are many reasons why a person starts. Mine would be just one of the many. About three years ago my time for retirement was nearing and I was looking for an interesting hobby to fill in the coming years when I didn't have to attend work each day. Having been a telephone technician for many years I felt I would like something electrical to play around with. But what? That was the big question.

A fellow technician happened to invite me to his home for dinner one evening. Afterwards, when we were talking and watching TV, he asked me if I was interested in model railways. I replied that while I had never really considered it, I was always fascinated by a train running around a shop window.

He took me out to his garage, and there I was astounded to see a table about 16' by 8' literally covered with railway lines, points, signals, buildings and mountains, etc., not to mention dozens of miniature people standing around.

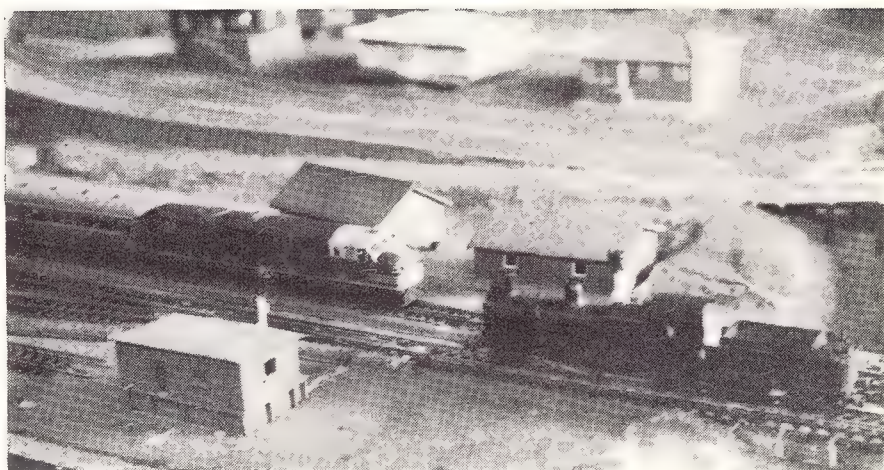
Then he threw a few switches, and trains started moving in all directions, each train following the one ahead and stopping at a red signal if it got too close. On closer inspection, I found that most of the trains were models of NSW prototype which he had made himself. I became absolutely fascinated with it all and decided I would have a go at it myself.

So, I had a look around the hobby shops at the various models. I did not have a great deal of space available, and HO gauge seemed too big for my space, while N gauge seemed rather small. At Searle's in Pitt Street, I saw a Rokal TT gauge train running around a rather confined window space. I bought a couple of locos and a few pieces of rolling stock together with some Gem TT track.

On a 7' by 3' sheet of plywood I went to town and laid tracks — just a plain oval — so far so good. Then visions started. A station? Buildings? A town? Trees? So again around the shops. But, alas! no building kits in TT scale. What now? Build some? Perhaps!

I started with plywood, cardboard, etc. The first ones were rather crude, but they improved as time went on until quite an assortment was produced, all Australian types of houses, etc.

As I was in New South Wales I wanted N.S.W.G.R. trains. On enquiries at the various shops I found there were no NSW models in TT. In fact, there was nothing much available in TT at all. Quite a disappointment. I had always liked the look of the 44 type diesel electric loco, but didn't see much hope of getting one.

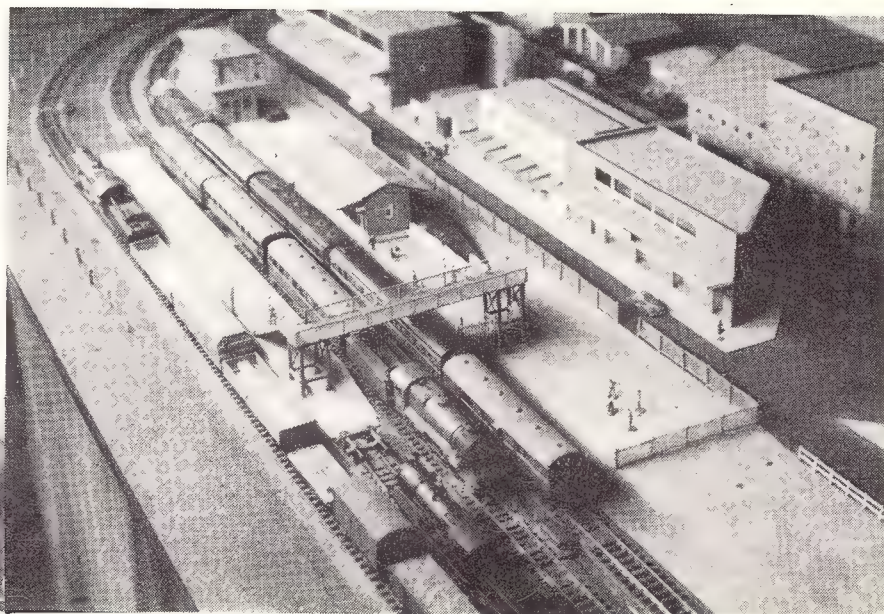


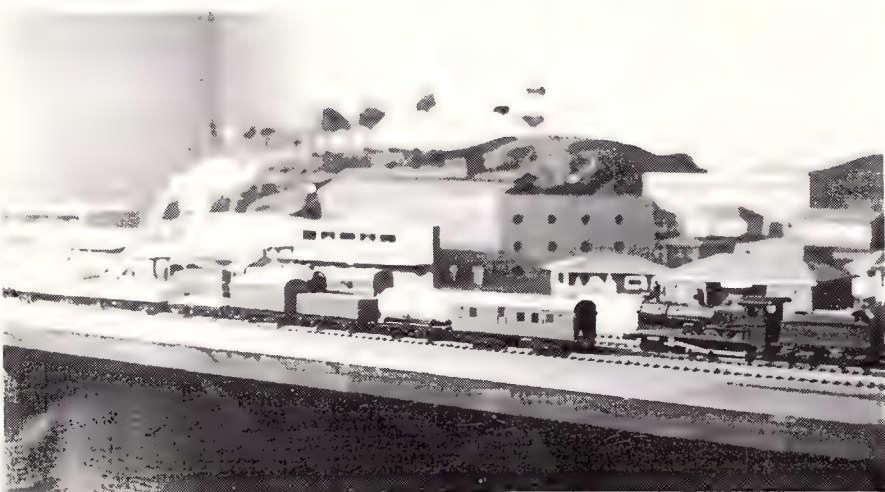
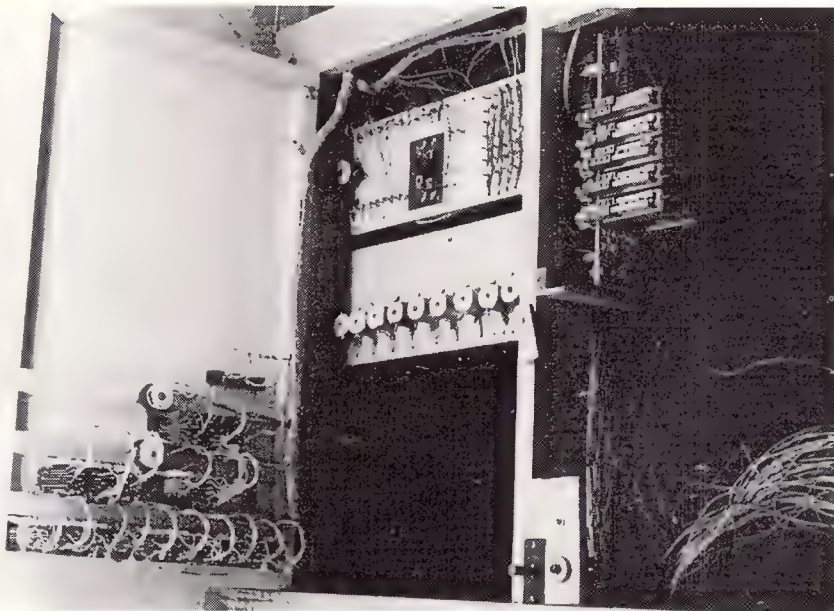
Then one day in Parramatta I passed Bergs Hobbies and had a look inside. There I saw a second hand Triang A1A-A1A diesel in TT. On closer examination I saw that the bogies were to all intents and purposes the same as those on the 44 type. On the spur of the moment I bought it. What a pity the body was nothing like the 44. Then a thought! Could I make a 44 type body? What material to use? How and where to start?

I obtained a plan drawing and photos from the Department of Railways, bought some 0.010" shim brass, copper gauze, etc., and went to work. After many hours of filing, cutting and soldering I had produced

a body. It looked rather rough and crude, so it was scrapped. Another start was made; it was also scrapped. After the third attempt I had what I considered a reasonable reproduction.

The A1A bogies were attached and a trial run made. It was fair but sadly lacked power. I searched around the shops for A1A power bogies, but no luck. Then someone suggested the Model Dockyard in Melbourne; I rang them and they had a stock of A1A power bogies in TT! I promptly ordered half a dozen. The body was then equipped with two power bogies wired in parallel. It worked! Plenty of power!





After it was painted and lined, I showed it to George Berg (of Bergs Hobbies) for him to see what had happened to his A1A-A1A. It was the Saturday morning of the Sydney Model Railway Exhibition, and he promptly asked for a loan of it to put on his stand at the exhibition; I was delighted to oblige.

I had never seen a model railway exhibition, so I decided to go along and have a look. What I saw there amazed and intrigued me. The displays were fascinating. Now the "bug" had really bitten and I was committed to model railroading.

Since then many more models have been produced. My present layout is on a 15' x 5' base with full scenery, etc. The track is arranged in a double folded oval (see plan). It consists of nine sections, all controlled by ex-PMG relays. Up to four trains can run continuously without any casualties. Each train deadens the section it has just left and holds it dead until it reaches the section ahead, when it restores power to the previous section and again deadens the section it has just left. At the same time as the sections are switched, the appropriate signal lights turn red or green, as the case may be.

To date the rolling stock roster consists of:-

- 3 type 44 diesel electric locos
- 2 type 36 steam outline locos
- 1 type 32 steam outline loco
- 6 type BS passenger carriages
- 6 type FN passenger carriages
- 1 type RS diner
- 1 type BH carriage
- 1 type TAM sleeping car
- 1 type OHG brakevan
- 4 type EOM brakevans
- 9 goods trucks of various types

The 44's all have two Triang A1A power bogies, the bodies having been fashioned from 1.010" shim brass. The steam outline locos are made from the same brass, with Triang X05 motors, Romford driving wheels and 40 to 1 worm and gear. The funnels, domes, bogies, etc. were turned from brass rod on a Unimat lathe which I had purchased on retirement.

The carriage sides are of shim brass, the roofs being shaped from 1/4" balsa. The bogie sides are made from 0.030" brass; the wheels are a mixture of home made, Jackson 9 mm and a few reworked Rokal. The track is all Gem nickel silver with hand laid points.

This article was written at the instigation of Max Chaseling, who is well known to readers of this magazine, and who took the photos accompanying it.

What starts anyone playing trains? Well, that's how I started.

**Joining The Southern Cross
Model Railway Association?
Then write for application
form to:**

**THE SECRETARY, S.C.M.R.A.
P.O. Box 107, Lakemba, 2195**

BACK NUMBERS AVAILABLE!

- No. 20 May/Jun. 1966
Building a ballast wagon
A prototype mine branch
with a difference
The Armidale, Tamworth &
Barraba model railway
- No. 22 Sept/Oct. 1966
Wagons galore
Hints on modelling
Casting bogie side frames
- No. 23 Nov/Dec 1966
Tips for taking model photos
Moulding with Silicon rubber
Switch motors
- No. 24 Jan/Feb. 1967
The 'Slim pickins' Mine
A mobile carpenters workshop
Making model locos driving wheels
- No. 25 Mar/Apr. 1967
Re-building Wingrove Station
Relay control circuits
Build a CN reefer
- No. 26 May/Jun. 1967
Building small lineside sheds
Yarragonbilli Junction
Construct a NSW 'MLE' flat
- No. 27 July/Aug. 1967
Scenery the easy way
The Melton Valley Rly. Co.
Building an observation car
- No. 28 Sept/Oct. 1967
Scratch build an RU wheat hopper
a 1n3/4 garden layout
Building 4-wheeled wagons
- No. 29 Nov/Dec. 1967
The Ab of the NZR
3-rail to 2-rail
Castledare miniature railway
- No. 30 Jan/Feb. 1968
How to wire your control panel
Victorian railways Tt cars
How I built the PCL
- No. 32 May/Jun. 1968
Victor Harbour
Planning in N scale
A quiet night at Wingrove
- No. 33 Jul/Aug. 1968
Build yourself a model T

- No. 34 Sept/Oct. 1968
Vintage 1880
Pacific Maple models
Planning in N scale
Prototype station
- No. 35 Nov/Dec. 1968
Planning in N Scale
Build a railmotor
Junelynn model railway
- No. 36 Jan/Feb. 1969
Planning in N scale
Realistic platforms & good sheds
Ramsden model railway
- No. 37 Mar/Apr. 1969
An SAR passenger car conversion
Make your own grass
Timetables for your layout
- No. 38 May/Jun. 1969
'Adelaide' SAR dining car
Making Gum trees
Electric traction modelling
- No. 39 Jul/Aug. 1969
The 'Lander' cars
A small oil storage depot
Working vestibule connections
- No. 40 Sept/Oct. 1969
Power operated points
Finden Branch model railway
Structures
- No. 41 Nov/Dec. 1969
A rivetted refrigerator car
Automatic branch line shuttle
A model railway
- No. 42 Jan/Feb. 1970
The Indian Pacific
Build a WAGR 'L' class loco
Make a modern 4-wheel waggon
- No. 43 Mar/Apr. 1970
Construct a coal stage
Baseboard construction
Containers in operation
- No. 44 May/Apr. 1970
A model 'VR' railway
A way & works van
Tarping down the load
- No. 45 Jul/Aug. 1970
Build a Qld. signal cabin
Increase traction
Instant layout

- No. 46 Sept/Oct. 1970
Build a water tower
Pictorial review
Building a BB18 1/4 class loco
- No. 47 Nov/Dec. 1970
Constructing NSW hopper cars
Weathering
Superdetailing
- No. 48 Jan/Feb. 1971
VR 'S' class loco
A model layout
Coffee Table HO n2 1/2 layout
- No. 49 Mar/Apr. 1971
Converting Rivarossi hopper cars
Scenery construction
Electric motors
- No. 50 May/Jun. 1971
A small country station
How I built the ROA
Prototype Station
- No. 51 July/Aug. 1971
Modelling wyes
NSWR 40 class conversion
Building the ROA model railway
- No. 52 Sydney Model Railway Society
Portable Work Bench
SAR C class cattle car
Route Setting
- No. 53 The Western Iron Line
Standard Gauge in WA in 1970's
3 in 1 Exhibition Layout
Point Motor Power Supply

ORDER NOW

Check that you are using the current list of Back Numbers (i.e. Is this the latest magazine?).

1 or 2 copies — 36 cents each
3 or more copies, 33 cents each

These prices include postage and handling

Post your order to:

SCR PUBLICATIONS
P.O. Box 204, Kings Cross, NSW, 2111.



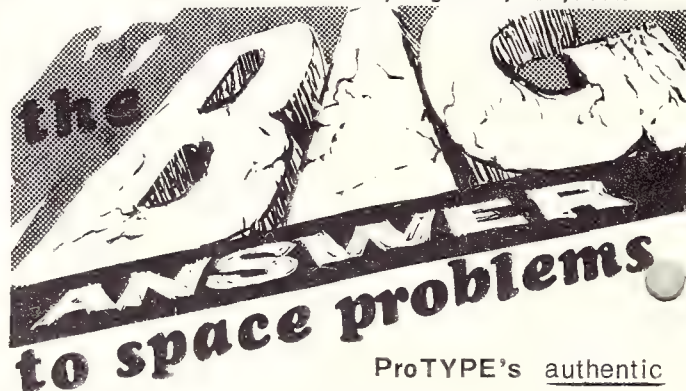
"You can't afford costly locos to run at the head of cheap fragile R.S. Kits. They laugh at each other. So aim for a sensible balance, financial and functional, buy quality — cast metal Loco Kits, that really pull and look right at the head of quality-cast last-a-lifetime metal R.S. Kits. That's sound logic and ProTYPE is the logical choice."

BUDGET WISELY Do you realise that if you buy two (2) ProTYPE Model Locomotives you save enough money to buy a third Locomotive? Can you afford to be Collector and leave gaps in your collection when it is now possible to acquire a good representative collection of Steam Locomotive Models? All models made by ProTYPE are guaranteed

SAVE MONEY with ProTYPE as you operate the best authentic kits in lifetime metal. Operate an All-States Train or name your own Railway... operate ProTYPE's "four wheeler" hoppers, vans and wagons where you are short of space. ProTYPE makes Twenty (20) pieces of R.S., Seven (7) "LOCOS" Forty (40) Accessory Pieces.

VALUE You don't have to kid yourself about value with ProTYPE Kits as they are authentic metal models (not toys) and they work well. Our Z-19 Loco can pull up to seventy-two axles at a time!

Send money with orders, today or write for LISTS.
ProTYPE Models, P.O. Box 218, Milsons Pt., N.S.W. 2061



ProTYPE's authentic Australian four-wheelers—that's the BIG, last-a-lifetime answer when space is a luxury; When you want more action in the space, you have. (The answer's BIG; The KITS are small). Outdoors, on weather-proof track or indoors ProTYPE has the authentic answer with the lowest-priced kits. (Lowest-priced because they last longer. Just figure it out). Stable & right weight for ProTYPE powered Locomotives and other good Locomotives.

SAVE MONEY with ProTYPE as you operate the best authentic kits in lifetime metal. Operate an All-States Train or name your own Railway... operate ProTYPE's "four wheeler" hoppers, vans, and wagons where you are short of space. ProTYPE makes Twenty (20) pieces of R.S., Seven (7) "LOCOS" Forty (40) Accessory Pieces.

Send S.A.E. today for list to —
ProTYPE Models, P.O. Box 218 Milsons Point, N.S.W.

BASIC ELECTRONICS Part 1

Model railroading, like everything else in our modern way of life, has been affected by the ever-increasing use of electronics. Because of this, the average rail modeller is finding himself more and more at a loss attempting to enjoy the benefits without the headaches that electronics have brought us.

We shall endeavour to bridge this gap and keep up with the times by presenting a down to earth discussion on electronics pertinent to rail modelling.

As the title implies, we shall start by talking about electrons. Electrons sort of gravitate inside the atom. To gain an idea of their smallness, think that an atom is to a

golf ball what a golf ball is to the earth. Electrons are the smallest negative charge (about 1/200 the diameter of an atom!). In combination with a nucleus they form the atom. The nucleus has a positive electric charge. Electrons orbit around the nucleus much like the solar system. The further the electrons from the nucleus, the less their energy, and the easier to remove them.

From this is derived the fundamental principle that like charges repel while unlike charges attract each other. Most of the properties of an atom are due to the number of electrons in the outer orbit. If they are easily removable the material is a good conductor; if not so easily, a semiconductor; if not easily at all, an insulator.

If by any means at all we succeed in removing these electrons and conveying them through a substance, we generate an electric current. The pressure, flow rate (analogously) and work done by a current is measured in volts, amperes and watts respectively ($W = V \times A$).

By comparing the electron flow to a water flow it will be easy to follow that by applying some work (electric generator/water pump) we can either have a continuous flow (electric current/water flow) or store the energy (battery/water dam) for later use. This stored energy is the potential or e.m.f. (electro-motive force/tension) and is also measured in volts.

As the atoms in a substance do not move, of necessity an electric current will consist of electrons (negative) moving towards atom orbit spaces, called "holes" (positive). For practical purposes we could also conceive a "holes" current moving in the opposite direction. An electric current can be visualised as a number of electrons hopping from atom to atom along a certain path, usually, for our convenience, some form of conductor (wire, transistor, battery, fuse, etc.)

From the above it follows that the electron does not have it too easy. This uneasiness is called resistance — it is

GEORGE GIRALDI

proportional directly to the e.m.f., and inversely to the current ($V = R \times A$). Electrical resistance is measured in OHMS (Ω). Combining the two equations given so far, we have the basic everyday electronic equivalences:—

$$\begin{array}{lll} V = R \times A & V = W/A & W = V \times A \\ W = R \times A^2 & A = W/V & A = V/R \\ R = V/A & R = W/A^2 & V = \sqrt{(R \times W)} \\ R = V^2/W & W = V^2/R & A = \sqrt{(W/R)} \end{array}$$

The multiples and submultiples of the above units most used in our work are:

volt (V) — to measure voltage on your rails, etc.

millivolt (mV) = 0.001V — to measure voltage of small audio signals, etc.

microvolt (μ V) = 0.000001V — to measure small radio signals, etc.

ampere (amp, A) — to measure current through a motor, etc.

milliamp (mA) = 0.001A — to measure current through light bulbs, etc.

microamp (μ A) = 0.000001A — to measure current through a transistor, etc.

watt (W) — to measure the power or your motors, etc.

milliwatt (mW) = 0.001W — to measure the power of transistors, etc.

ohm (Ω) — to measure low resistances

kilohm (k Ω) = 1000 Ω — to measure medium resistances (also K)

megohm (M Ω) = 1000000 Ω — to measure high resistances (also M).

As there is no such thing as an ideal conductor, we are actually left only with good or bad resistors. Conductors like copper, brass, etc., are good conductors, naturally bad resistors.

Resistors are made commercially of good resistive metal alloys in wire form, or of special chemical compounds. The modern universal way of reading the value of a resistor is by use of a colour code (see Fig. 1).

The resistance causes an electric friction, absorbing power and giving off heat; the energy so dissipated is measured in watts. Usually this rating is related to the size of commercially available resistors. Resistors can be fixed or variable (see Fig. 2 and photos); variable resistors are also called rheostats or potentiometers (pots for short).

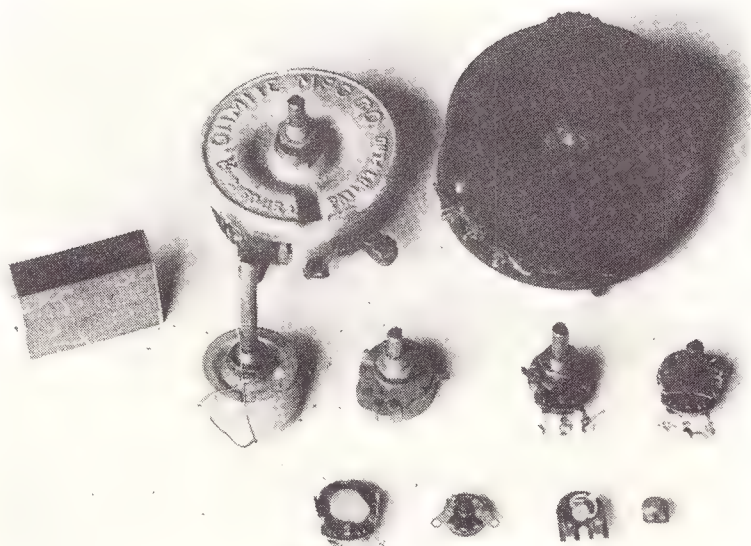
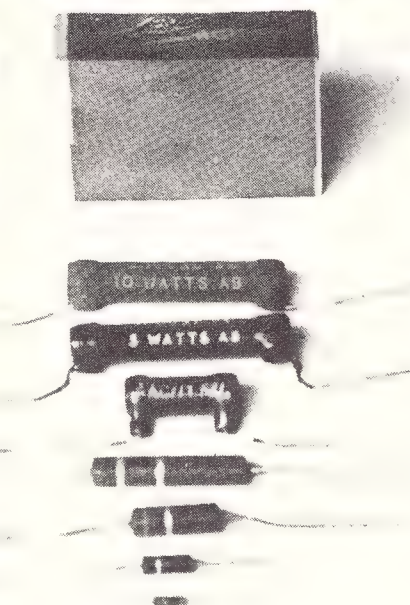
What practical value has all this to you? Let's say you have just the right motor for a special project but, besides being Japanese, it is rated at 9V max and 0.25A. What value resistor should you put in series? One that will drop 3V at 0.25A or, using the basic formulae:—

$$R = V/A = 3/0.25 = 12$$

and will be able to dissipate

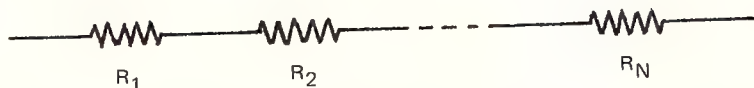
$$W = V \times A = 3 \times 0.25 = 0.75 \text{ W}$$

(see also Fig. 3).



The same reasoning would apply to a smaller voltage bulb or anything similar.

Resistors can be connected in series with the total resistance $R = R_1 + R_2 + \dots + R_N$



A practical example would be the resistance of the secondary winding or your transformer, plus that of your rectifier, plus that of your wiring, plus that of your rails, plus that of your motor, plus the resistance of all the contacts. In other words, this is why you have to start with 16V to have

about 12V on your loco, if you are lucky. They may also be connected in parallel, with the total resistance given by

$$R = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \dots + \frac{1}{R_N}}$$

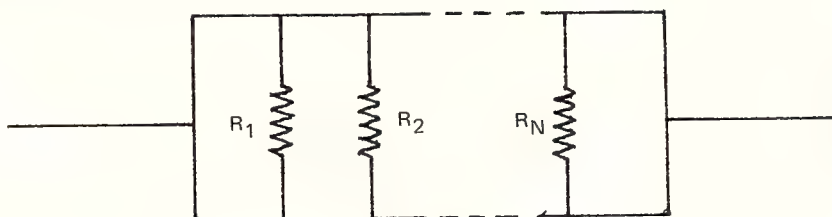
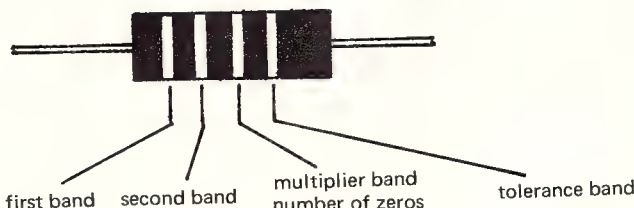


FIG 1



	first band	second band	multiplier band number of zeros	tolerance band
black	0	0	0	nothing
brown	1	1	1	±20%
red	2	2	2	±10%
orange	3	3	3	±5%
yellow	4	4	4	
green	5	5	5	
blue	6	6	6	
purple	7	7	7	
grey	8	8	8	
white	9	9	9	



FIG 2

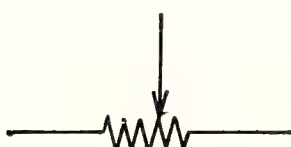
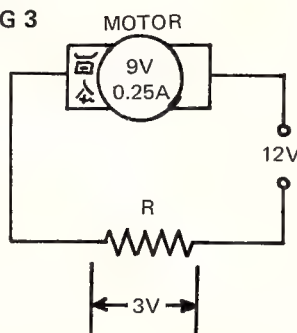


FIG 3



SCRaps

What is 'SCRaps'? The Concise Oxford Dictionary defines scraps as 'small detached piece of something ...useless remains'. 'SCRaps' will be a home for all the little bits of information which don't fit in elsewhere. The name was devised by Associate Art Director Ray Wurlod. 'SCRaps' is typed (badly) to enable last minute changes to be included.

This issue of AMRM is late due to the need of the staff to attend the Melbourne Exhibition. We hope to have the next issue out on time but need your assistance in getting items in time. The closing date for the May/June issue is 1.5.72.

S.C.R. Publications no longer stock or sell plans. Please don't write in for plans.

Please write to us if you have any comment on the magazine or its contents. To save our typing fingers we will acknowledge a letter in this column unless a full reply is needed. Write to:

The Editor
A.M.R.M.
P.O.Box 204
Kings Cross
N.S.W. 2011

This publication accepts no responsibility for the accuracy or reliability of articles or advertising contained herein, statements made or opinions expressed in papers or discussions, nor do we necessarily subscribe to the views expressed by contributors. Neither is any guarantee implied or expressed as to good conduct, or practice, of advertisers contained herein. This publication reserves, at all times, the right to refuse acceptance to all matter considered unsatisfactory for publication.

A PROTOTYPICAL CONVERSION

R. A. GALLAGER

In 1877 the New South Wales Government Railways found that their motive power supplies were low, due to increased track mileage, as the railway was now nearing Tamworth, Wagga Wagga and Orange. To overcome the loco shortage the NSWGR placed an order with Beyer-Peacock & Co. for fifty 0-6-0 tender locomotives, the A(93) class, later renumbered the Z19 class. The number in the class was eventually boosted to seventy-seven by local manufacturers and constructors, with Henry Vale & Co. supplying eighteen locomotives.

By 1902 the A(93) class locomotive was found to be inadequate for mainline power and so were relegated to branch lines and shunting duties until the present day when two members of the class are still working at Port Waratah depot. However, 20 of the class were rebuilt into tank engines of the 2-6-4 wheel arrangement for use as mixed traffic locomotives. Classified originally as the A/E the locomotives were grouped with the E(10) class in 1920 and as the (Z)20 class in 1924.

In 1971 the Camden Valley Railway (operated by the author) purchased from Prototype Model Products, a Z-19 class locomotive to help cope with the increasing coal traffic. Realising the potential of the Z-19 class the C.V.R. and the Australasian Model Railroad Magazine approached Prototype Model Products to supply a number of Z-19 parts that could be used to build an A(E) class (Z) 20 locomotive.

The following article follows the step by step procedures used by the C.V.R. engineering workshops.

Prototype Parts Listed is the number of parts supplied by Prototype. All items are first class castings and can be obtained direct from the manufacturer, advertised elsewhere in this edition, or ordered from your local Prototype dealer, for \$18.00. Castings supplied are:—

- 1 pair of hard bronze sideframes and matching siderods.
- 1 set of boiler castings.
- 2 sets of footplate castings.
- 1 steam dome, 1 chimney, 2 sand boxes.
- 1 set of detailing parts including — clack

valves, whistle, smokebox door and handle, air pump safety valve, brake cylinder, handrail knobs, cab front, cab sides and roof.

Additional parts required

- 3 Romford 14mm insulated driving wheels
- 3 Romford 14mm ordinary driving wheels
- 3 Romford 00-gauge driving axles.
- 1 set 30-to-1 or 40-to-1 Romford worm gears (the 30-to-1 are faster but quieter).
- 3 axles of 9mm wheels (see text).
- 1 Kays mark II motor,
- 1 small flywheel if required.
- 1 length of nickel silver wire.
- 12 BA, 10 BA and 8 BA screws.

Most of these items are available from hobby shops in Australia, or otherwise from Australian Model Craft Co.

Tools and other items Some of these will be in most modellers kits. However, if the parts are not available from your hobby shop then they would be available from an engineering supply house.

6" x 6" sheet of .018" (28 gauge) shim brass.

3/8" x 1/8" brass rod.

files, piercing saw, etc.

No. 61, 55 and 51 drills.

12 BA, 10 BA and 8 BA taps.

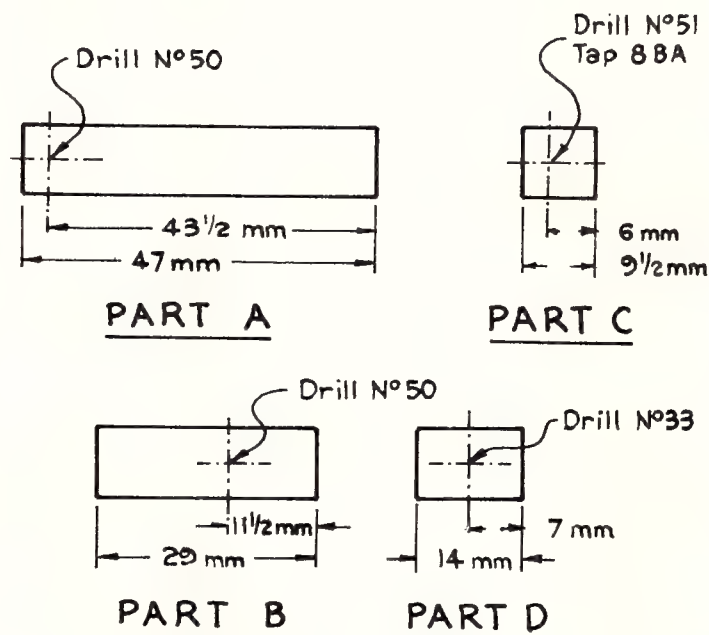
EAMES Frame spacing jig (see review in this issue).

METHOD OF CONSTRUCTION

There are two methods that can be used. The first using the two purchased footplates or the second which uses a home built footplate constructed from brass. This article deals with the latter method. Read the text carefully before proceeding.

The Chassis Clean the flash off the sideframes and siderods; remove the springs over the centre axle; remove the blocks on the rear of the sideframes used for holding Z19 steps, finishing at the original sideframe; remove the vertical section of metal (wheel guard) forward of the front wheel brake shoe, finishing the sideframe square. Refer to photographs and fig. 2 for the final appearance of the sideframes. Clean the axle holes with a 1/8" drill and if this does not permit free rotation of the axle, redrill No. 30 after the sideframes are assembled. Clean the back of the sideframes with emery paper. Out of 3/8" x 1/8" brass bar, cut to size and drill parts A, B, C and D as shown in Fig. 1.

Assemble sideframes together using the Eames spacing jig or improvise using 1/8" steel washers and 1/8" steel R.H. screws and nuts. The distance between frames is 3/8" (9 1/2 mm). Place Part B between side frames, referring to Fig. 2 for the measurement and correct position. Place frames upside down on a piece of plate glass and keeping part B flat on the glass and level with the top of the sideframes, solder it to the sideframes. Remove jig spacer from the front axle and repeat the process for Part A. It is essential that Parts A and B must be on the same flat plane with the top of the sideframes, so do not proceed further until this is achieved. When this is completed, remove the jig and



All parts 3/8" x 1/8" brass bar
SCALE: Full Size

FIG. 1

int

clean off any excess solder or flux.

Position an axle in the centre axle position of the sideframe assembly with the gear in place. Now put the worm on the long end of the motor shaft and attach Part D to the motor, with a 6BA RH screw $3\frac{1}{2}$ mm in thread length. Ensure that the screw does not foul the armature. Insert the motor into position, firmly meshing the gears. Tack solder Part D to the frames, then remove the motor (too much heat will damage the motor). Then solder Part D firmly into position. Now solder Part C into position. After every soldered joint is completed, clean away excess solder and flux.

WHEELS

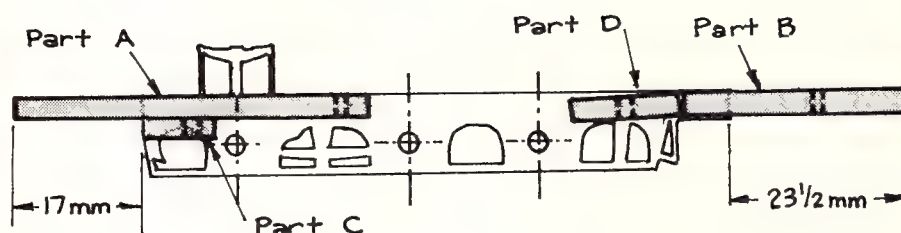
Crank-pins Method 1 Drill the siderods No. 58 and check for clearance with the 12 BA cheese head screws which will be used for crank-pins. Using a No. 61 drill, drill the wheels on the positions marked for crank-pins. Tap halfway through the thickness of the wheel with a 12 BA taper tap. Now screw a side rod onto a wheel using a 12BA screw until the screw is tight. Now estimate the length of screw that will have to be cut off to hold the siderod to the wheel with just a little sideplay.

Crank-pins Method 2 In this case the crank-pins are dressmakers pins. Drill holes slightly smaller in diameter than in the pins in the marked position on the wheels. Press fit the pins through the siderods into the wheels, allowing the siderods ample sideplay. Cut the pins off flush with the back of the wheels. This method, while being the neatest in appearance, does not allow for easy dismantling of the siderods, for if the pins are removed and replaced too often then the crank-pin holes will gradually enlarge.

MECHANISM Assemble the wheels to the axles remembering to place the crank-pins on opposite wheels 90 degrees apart. Roll each wheel-set on a piece of level track, checking for wobbly wheels. Repair if necessary by lightly filing the back of each wheel square. Mark the wheels and axles so as the same wheels will always be assembled in the same position on the same axle. Assemble the axles and wheels in the chassis keeping insulated wheels to the right hand side of the chassis looking from the front. Don't forget to put the gear wheel on the centre axle. Attach the siderods to the wheels using the crank-pins. Place the chassis on the track and move it in both directions to check the mechanism for binding. If the siderods bind then determine which siderod is tight and using a rat tail file to enlarge the appropriate crank-pin hole. A method of checking which siderod and crankpin is binding, is to move the chassis along the track until the mechanism is just becoming tight and then check each siderod for longitudinal play. The siderod which is extra tight is the offending one. Do not enlarge the crank-pin holes unnecessarily. When the chassis is free, add the motor and run the mechanism by turning the motor armature by hand and if the mechanism is tight, pack the worm up by placing shim brass or paper between the motor and motor plate (Part D), forward of the holding screw.

PICK-UP Refer to Fig. 3 and the photographs for the method of pick-up. A

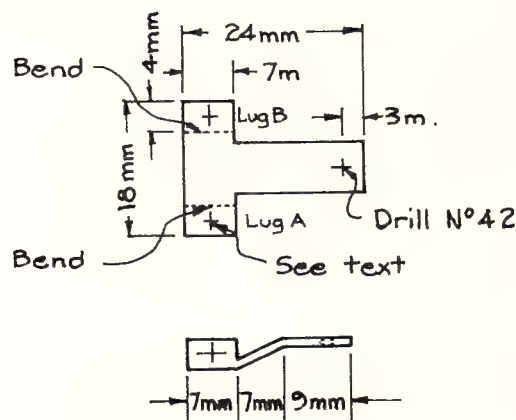
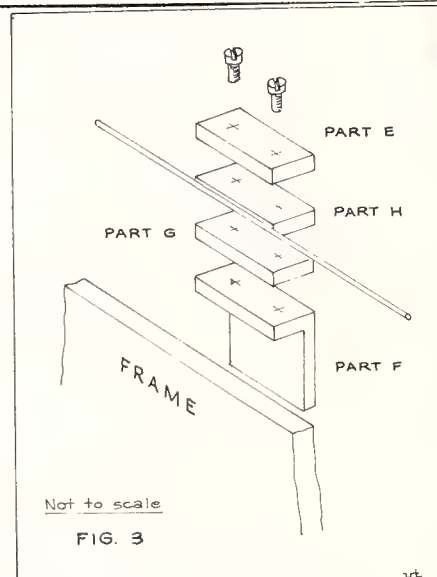
POSITIONS OF FRAME SPACERS



Scale: Full Size

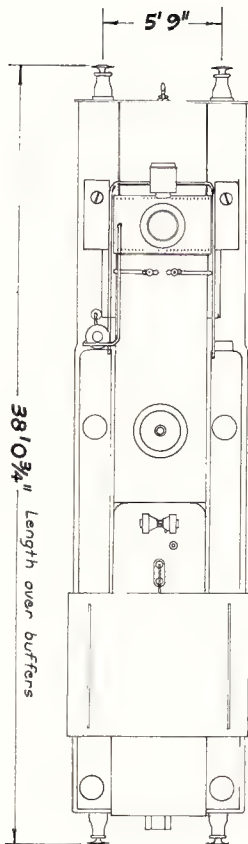
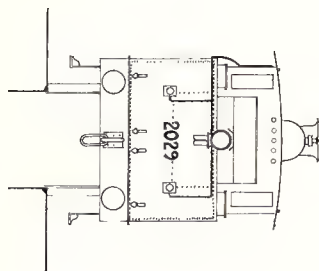
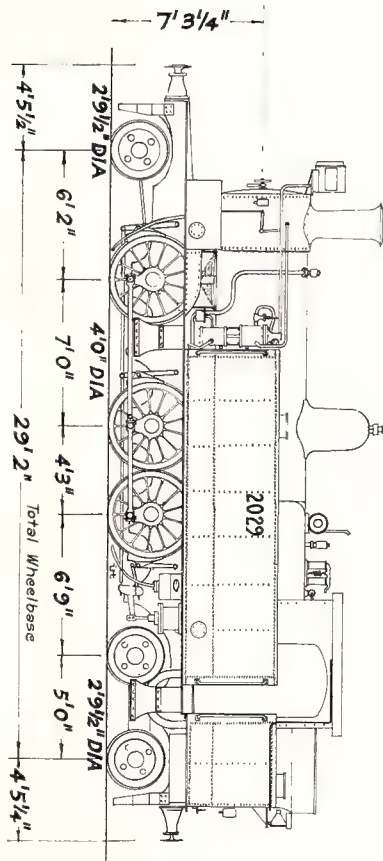
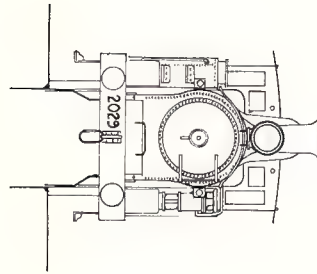
FIG. 2

small right angled brass bracket (Part F) drilled and tapped 12 BA is soldered inside the frame on the insulated wheel side, between the centre and rear axles, but clear of the motor. The top of the bracket is 3 mm above the top of the frame. Part G (10mm x 4mm x 1mm) styrene, drilled No. 55 is positioned on top of Part F. Part H (similar in size to Part G and E and the top part of Part F) is of brass and is drilled No. 48 with a 40mm length of nickel silver wire soldered on one edge, with the pick-up cable sweated to the opposite edge. Part E is identical to Part G. Place in position and tighten the pick-up assembly with 12 BA screws. Do not allow Part H to be in electrical contact with any other metal. Bend the wire until it scrapes on the top of the wheels, then remove excess wire. Ensure that the scrapers do not apply too much pressure on the wheels, for this will tend to seize the mechanism. Replace the motor and solder the pick-up cable to the brush tag under the motor. Sweat the top brush tag to the frame via a thin cable. Test run the mechanism for short 5 minute periods, but



Scale: Full size

FIG. 4



N. S. W. G. R.
20 CLASS
 2-6-4 TANK
 SCALE: H.O. (3.5mm = 1ft.)
 Drawn by: I.R.T. (Jan '72)

When writing to advertisers say
you saw it in A.M.R.M.

if the motor overheats, check for binding again. The K's motors are reliable with a good mechanism.

PONY TRUCKS There are two types of wheels on the Australian market which the author knows are suitable for this job. They are the Jackson disc 9mm wheel (drill No. 44) and Japanese 9½mm pinpoint axle spoked wheels (drill No. 38). The wheelsets can be pulled off their axles and press fitted back when required. Remove the protruding axle after the wheels have been fitted to the trucks, with a back to back of 14½mm. Don't forget to place an insulated washer between the spoked wheels and the truck frames to prevent shorting circuits. To be prototypically exact, the discs of the wheels should be drilled No. 60 in four places as shown on the plan.

Front Truck Referring to Fig. 4, cut out and drill the front truck frame using 1 mm thick brass. Bend lugs A and B parallel to each other and bend the truck main shaft as shown in the diagram. Fit the wheels and assemble the truck to the chassis with a 8 BA screw to Part C. The truck should have some vertical movement.

Rear Truck Referring to Fig. 5 and using 1mm thick brass, cut out two Part J's. Solder them together and drill the holes. Now separate them and mark similar ends. Cut-out and drill Part K (1mm thick), and with a rat tail file join both drill holes together. Check that a 8 BA screw can be moved up and down as well as across. Place Part K on a piece of plate glass, face down, and place one Part J on each side of Part K, keeping similar ends together. Now solder the parts together making sure to keep the holes for the axles parallel and square. If the axle holes are not square, unsolder and try again. Assemble the wheels in the truck.

Drill No. 51 and tap 8 BA in Part B in the position shown in Fig. 1.

club car

S.C.M.R.A.

Members in all States of Australia, New Zealand, North America, England and Europe.

Secretary: Bob Wickendon, P.O. Box 107 Lakemba, N.S.W. 2195.

Membership Dues: \$4 p.a. Joining fee: \$2.

Division Representatives:

Q'd.: Max Chaseling, 10 Merlin Terrace, Kenmore, 4069. Ph. 78-4462.

N.S.W.: John J. Bevan, 5/6 Kara St., Randwick. Phone 399-9649.

S.A.: John Trélease, 7 Milton Ave., Fullarton, 5063.

W.A.: John McCarthy
Lot 62 Slab Gully Rd.,
Roleystone 6111

Tas.: Lloyd Crosswell, 12 St. Andrews Place Launceston, 7250.

N.Z.: John Yolland 7 Riverina Ave., Pakuranga

CANBERRA MODEL RAILWAY CLUB

Canberra, Tuesday (CMRC Wire Services)

The highlight activity in the Canberra Model Railway Club's spring programme was their participating, at the request of the Canberra Public Library Service, in the "Down by the Station" display that focussed public attention on the CPL's fine collection of over 300 railway books. For the first week the display consisted of the library collection, plus several hoarding'sful of posters and other railway memorabilia contributed by the Club members and the ARHS. Nightly displays of static models, and operation of a working HO layout, supported by a running commentary and interspersed with film showings, were added over the second week. The unexpected level of public interest caused the CPLS to extend the show by another week, making three weeks' exposure in all.

The venue for the show was ideal: a specially-designed exhibit[n] area of the Dickson Public Library. Operations on Fr. Robert Ebbs' portable double track layout were mixed with film programmes to fit each night's theme: Australian, British,

Continental, or US model railroading and (on Fridays and Saturdays) "Trains of the World". Quick-changes of buildings in the scenery established the appropriate regional scene. Several lay members of the public were present on more than one night, the Club obtained seven membership enquiries, and the Library filed over 400 reservation slips for the books on display.

Steam, diesel and electric traction were all represented among the trains on display, which included both locomotives and multiple units and covered the period from 1830 (Stephenson's Rocket) to 1971 (polycurrent electric units).

Noteworthy models on show included two 10-car French expresses, the Mediterranean section of *Le Mistral* by Pat Ahern (French-American 2-8-2 engine), and the Paris-Brussels *Le Capitole* by Dick Lubach (*monomoteur* B-B electric and *Gran Confort* coaches with *Bar Gril*). The Union Jack was flown by two Pacific-hauled passenger trains, a West Coast sleeping car express (Tim Richardson) and a solid Pullman (Dick Lubach and Don O'Neill), headed by a LNER A4 class on some nights and a Southern "West Country" on others. Three US trains on display comprised John Peason's C & O Mallett with 16 coal hoppers and a caboose (every one lovingly re-wrapped by the cursing stewards who had to put it away every night!), Dick Lubach's rake of Sante Fe cushion-draft gear box cars (including 85 ft hi-cubes) pulled by 2 six-axle GM diesels, and Bruce Block's rake of oil and chemical tankers pulled by a similar loco. Fr. Robert Ebbs exhibited a VR narrow-gauge train that runs on HO track and (in HO gauge) NSWGR 32, 38, and 59 class engines pulling representative trains. Fred Schmidt's sheep van, scratch-built in styrene, was one of several Australian wagons in HO scale that won many ooh's and ah's from the more knowledgeable. Dick Hinder furnished a stud of NSWGR diesels to pull them.

On international night a member of the AHRS who we hope will join the Club contributed a range of Japanese trains: his Container Express Freight pulled by a brass Mikado was perhaps the most memorable.

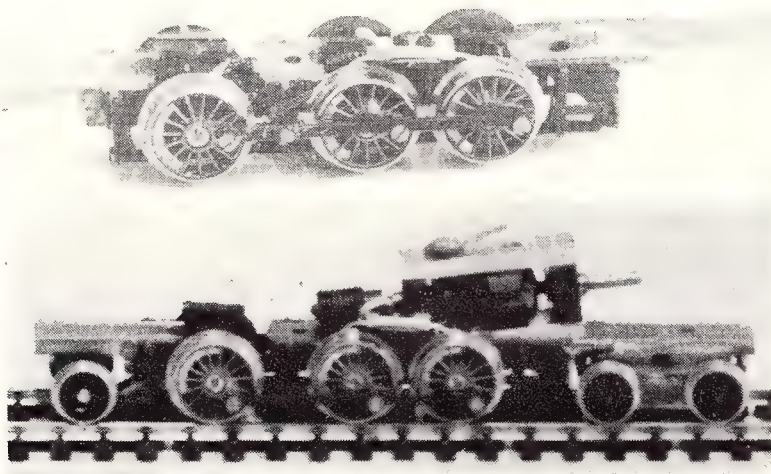
Chris Feldberg and Murray McFarlane showed a fine 10-car Pennsylvania Limited that reminded all present of the growing possibilities of N scale. In O gauge, Gabriel Harris' three Bassett-Lowke LMS locos and two Exley coaches sent several Englishmen home with visible attacks of nostalgia. Gauge 1 was also represented by Gabriel's Henschel diesel shunter, and two Rhinegold coaches that it must surely have shunted straight onto the stand from Gleis 19 at Koln Hbf. One could almost hear a fast-idling MAN diesel engine and smell the *zigarren* of the managerial-size first-class patrons.

Sterling work was done by many members setting up and manning the stand. Operator Douglas Bourke's long hours won him a well-earned Junior Membership, carried with acclamation at the November Club Meeting.

I.B. Macfarlane,
Publicity Officer, CMRC

Illawarra Model Railway Association

The I.M.R.A. meets at the Wollongong Police Citizens Boys Club every Monday night at 7.30 p.m., where we operate a comprehensive HO gauge layout.



AUSTRALIAN MODEL RAILWAY ASSOCIATION (NSW Branch)

February 5th heralded the Annual meeting of the Branch and following the usual reports and the announced retirement of President Graham Larmour, the elections were held. The 1972 Officials are:-

President: John Dunn

Vice-presidents: R. Gray & H. Sheperd

Secretary: A. Brown

Treasurer: J. Skilton

Branch Reporter: R. Gallagher

Twelve additional members were elected to the committee. Prospects for the year look bright with a wide range of meetings suitable for visitors and members alike. Included are a layout operation meeting once a month, a special N gauge meeting once a month, a modelling clinic meeting once a month, film nights, slide nights, auctions, demonstrations and inter-club visits. The N gauge meeting, on the second Saturday of the month, are preparing to build an exhibition standard layout, while the second Friday night sees the production of a NSW prototype locomotive (F.351 class), in the modelling clinic.

Visitors are WARMLY welcomed to all meetings which are held on the 1st, 2nd, and 3rd Saturdays at 2.00 p.m. and the 2nd and 4th Fridays at 7.30 p.m. Further particulars can be obtained from the Secretary, A. Brown, 17 Annie St., Hurstville, 2220, phone (02) 50 6720.

Program highlights for April-May include:-

Saturday, April 15 -

Auction (Bring your UNWANTED items

and money with you)

Saturday, May 6 -

Scenery demonstration, featuring hard shell scenery and zip texturing a la Brown.

Friday, May 26 -

Visit glass works (consult notice boards)

Saturday, June 3 -

Problem clinic (Come and stump the experts or come and become an expert - definition)

EXPERT: X; an algebraic unknown quantity, SPERT; a drip under pressure.)

Friday, June 23 promises the return of ARHS ex-President N. Thorpe featuring his slides of Sydney steam trams.

Most meetings are held at the Clubrooms at Chapel Lane, Rockdale, N.S.W.

MODEL BUS FEDERATION

Join the society that caters solely for the model bus and coach enthusiast. Members receive a monthly news-sheet giving them modelling hints, descriptions of the latest cast white metal kits available and other informative features.

There is a members' sales division which offers products at discount prices. Feeder buses and long distance coaches parked alongside a railway station will greatly improve your model layout.

For further details and sample news-sheet contact Australian member:- Mr. W.C. Summerell, 116 Bellevue Parade, Hurstville, NSW, 2220. Phone (02) 54 2991.

E. Yorke, Secretary, Norton Green, England.

MEETINGS: Every Monday (holiday excepted) 7.30-9.30. Visitors welcome on 1st and 3rd Mondays of month; visitor parties must make prior application by letter.

NEW MEMBERS: Membership is now open for new members over 20 years of age for both O and HO sections. They must be actively involved in model railway construction and/or operation and

mail bag

Sir,

In having collected and read every issue of AMRM since its inception in 1963, one subject that I am interested in, has not been presented. It is 'Locomotive Wheel Conversion in HO/OO Gauge'.

Perhaps some readers may be able to help me with answers to the following.

(1) Converting Triang steam outline locos to using Romford wheels yet retaining the original chassis and gearing.

(2) What brands of locos i.e. Triang, Lima, Rivarossi, etc., will run on Shinohara code 100 track and points without resorting to wheel conversions?

Possible the answers could appear in 'Mailbag' to assist other modellers.

R. Solly,
Evanston, SA.

Editor's Note: Could somebody prepare an article on the wheel conversions for the magazine?

INDEX

Readers wanting an index for volume 4 can obtain one by writing to the address below enclosing a stamped self addressed 9" x 4" envelope. Sorry to do it this way but we need to cut costs. Write to:

Index
S.C.R. Publications,
P.O. Box 204,
KINGS CROSS 2011.

attend regularly, and contribute their skills to building/repairing the Society's model equipment and manning the layout control boards for operational sessions. Apply by letter, or personally on a visitors' night.

OFFICIALS: President—Paul Simpson; Secretary—John Bowen; Vice-Presidents: O gauge, Don Stone; HO, Bob Gallagher.

"O" Gauge news

The club rooms are now open for business again after the Christmas break, and normal timetable running has resumed in spite of the usual beginning of the year rolling stock shortages. Thanks are due to Barry Milner and Max Mitchell for coming in a week early and cleaning the HO and O gauge layouts respectively.

President Paul Simpson has received a card from the R & R Hospitality Service, in appreciation of the hospitality shown by the society to various members of the American Armed Services while in Sydney on R & R leave.

Tony Wyeth has been working on a 70 class diesel-hydraulic shunter, and expects to have it running very shortly. Members are reminded that membership fees fall due in April and are payable in June. Please see treasurer, Ken Smith, at any meeting.

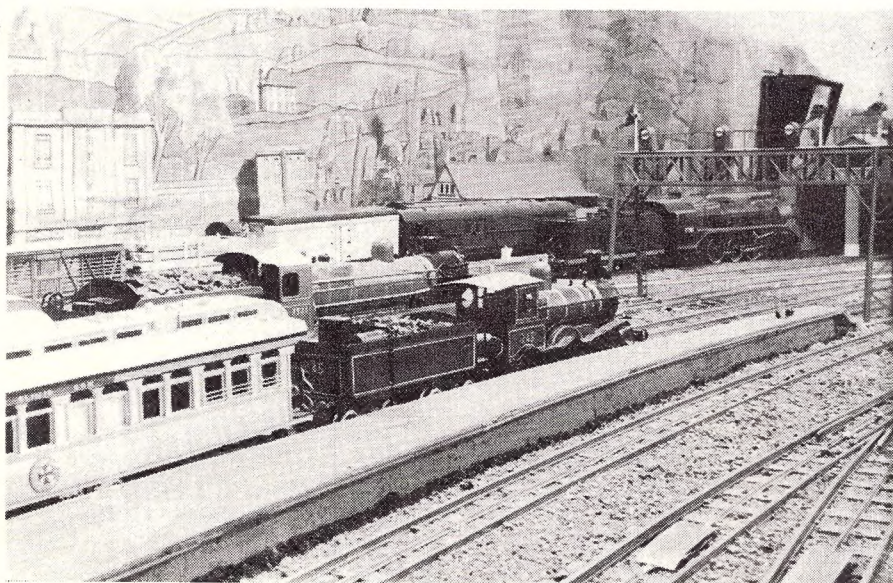
The photo this issue was taken on the O gauge layout, and shows 12 and 35 class engines on passenger trains in Central, with goods and a VR "R" class 4-6-4 in the background.



BULLETIN OF THE AUSTRALIAN MODEL RAILWAY SOCIETY

4th floor

Railway Institute Building
273 Castlereagh Street, Sydney
(Opp. Mark Foys)



hobby shop directory

N.S.W. — NEWCASTLE

Big range of FRIEDMONT N.S.W. Model Kits
Also stocks of
Rivarossi—Tri-ang—Fleischmann—Lima
Athearn—Crown—Peco—Superquick
and many others.

Sales & Prompt Repair Work

VIC BARNES HOBBY CENTRE
213 Lambton Rd., New Lambton
Phone: 52-1886

N.S.W. — SYDNEY

All scale HO model requirements.
Athearn—Rivarossi—Peco—Tri-ang
We specialise in brass locomotives

HOBBYCRAFT
276 Illawarra Rd., Marrickville
Phone: 55-3580

market place

12 words for 40 cents. Extra words 2 cents each. No charge to SCMR members. Name, address and telephone number free. Advertiser number allotted and replies forwarded for 60 cents extra. Closing date: 20th of previous month (e.g. 20th of October for November/December issue).

WANTED

Hamfisted but unrepentant white-metal locomotive kit-basher seeks occasional assistance in construction of chassis which really work properly. Good prices for good workmanship. Sydney area. Reply to Advertiser 62, AMRM, P.O. Box 204, Kings Cross, 2001.

WANTED. Brass HO C32 loco and tender. Please write stating condition and price to A.A. Snoeren, P.O. Box 33, Ainslie, Canberra, ACT, 2602.

WANTED. Brass HO NSW D50 2-8-0 loco and tender (preferably turret tender). Write stating condition and price to Advertiser 63, P.O. Box 204, Kings Cross, 2011.

TRIANG Budd rail car power/non power. Lima loco 3002/CL in green livery, and either Lima loco 8029/CL or 8030/CL. Please write stating condition and price to J. Clowry, Lot D, Harold St., Macquarie Fields, NSW, 2564.

VICTORIA — GISBORNE

Rivarossi—Tri-ang—Peco
Atlas—Prototype—M.R.C.
Friedmont

P.J.P. PRODUCTIONS
15 Hamilton Str., Gisborne, 3437

VICTORIA — ARMADALE

New and Second Model Railway Equipment.
Lay-by or Trade-in.
Goods posted or railed everywhere
and anywhere.

RACINE TOYS AND HOBBIES
Shop 2, Rings Arcade, Armadale,
Vic. 3143.

S.A. — ADELAIDE

United, Floquil & Humbrol, Kadec, North
Eastern woodshapes, Romford, Railroad
Books, Wlad, Vollmer, Superquick, Bultez, Triang, Central Valley, Roundhouse, Railroad repairs, Prototype, Mintrix, Atlas.

BRIDGLANDS
91a Gawler Place. Phone 8-4297

Q'LAND — BRISBANE

Railways exclusively.
Kumata—United—Tenshodo
and all other Japanese makes
Large narrow gauge coverage.

AUSTRAL MODEL CRAFT
101 Laura Street, Elbin. 48-3377

Q'LAND — REDCLIFFE

Model Railways are our business!
Not only do we sell but we also service what we sell (if and when required).
Tri-ang—Hornby—Dublo—Peco—Fleischmann
Mintrix—Playcraft—Pola—Lima—Lone Star
Superquick—Kibri Vollmer
These are some of our lines. See full range at

PENINSULAR MODEL RAILWAY MARKET

4 Bell Street, Clontarf Beach, Qld. 4019.
Phone (072) 84-7907

N.S.W. — ALBURY

We stock HO & N gauge
Tri-ang—Rivarossi—Lima—Atlas
Mintrix—Arnold—Peco—Kibri
Superquick—Faller—Vollmer

ALBURY HOBBY CENTRE

Regent Building, 460 Dean St.,
Albury, N.S.W. 2640.
Ph. 211564.

N.S.W. — HORNSBY

All brands including Rivarossi Peco and Vollmer in all gauges from 'N' to 'O'.
Mail orders receive expert service.

MICRO MODELS
Shop 10A Westfield Plaza,
Hornsby
(02) 476-2588

WANTED: Model Railroader complete volumes in good condition before 1965. State year, price and shipping rates to Murchison. All letters answered. R. Sidebottom, Impey Street, Murchison, Vic., 3601.

Back copies of AMRM. Issues No. 1, No. 4, No. 5, No. 8, No. 13, No. 17, No. 19. Good prices paid. R. Gallagher, 52 Eyre Street, Malabar, NSW, 2036.

OO GAUGE WANTED. GWR items "1400", "4400", Prairie kit, Schools kit and rare plastic waggon kits. Auto coach (not K's) cast Panniers or bodies. Hornby WR goods brake. L01 tender. Number plates. Back-scene-sheets. Methfix or rub-on lettering. K. Clarke, P.O. Box 32, South Hobart, Tas., 7000.

O-GAUGE Exley coaches, Bassett-Lowke locos, rolling stock. Offer cash or unused HO, including United, collection. Cassells, Box 51017, Tawa, New Zealand.

FOR SALE

MARKLIN model railway — 2 engines, stock, track. D.J. Truelove, 12/90 Raglan St. Mosman, NSW, 2088.

UNITED Milwaukee F6A 4-6-4 \$70, M&W 1" micrometer \$6, Benson vernier caliper \$15. Loco repairs and scratchbuilding undertaken, white metal kits assembled, soldered pointwork constructed, O to N and mixed gauge. Good quality work at reasonable prices. Enquiries to D.A. Bocking, 32 Tennyson Ave, Turramurra, NSW, 2074. Phone 484932.

FOR SALE "Hornby" Track, 2 rail, slightly used — 49 straights, 20c each (equal 87c per yard), 18 17 1/2" radius curves, 20c each, 4 electric op. points, \$2.00 each. Phone Penrith (NSW) (047) 392 209 or Sydney 451 4013.

Jamison Locomotive Kits featuring NSW C36 Class and C30 Class. Kits available ex-stock from the U.K. More details — NSW kits, P.O. Box 176, Matraville, NSW, 2036.



Full stocks of Marklin always available also
Homo two rail 12v D.C. Marklin locos.

J. SEARLE & SONS — Est. 1897
315 Pitt Street, Sydney. 26-5737

BERGS HOBBIES

111 Macquarie Street, Parramatta
635-8618

Proudly presents . . .

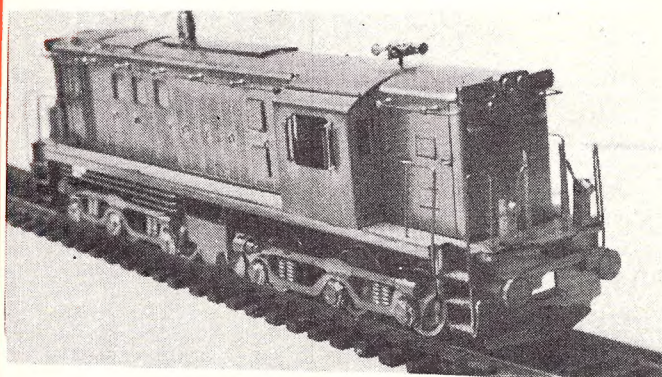


2AN bogies in stock. \$3.25.

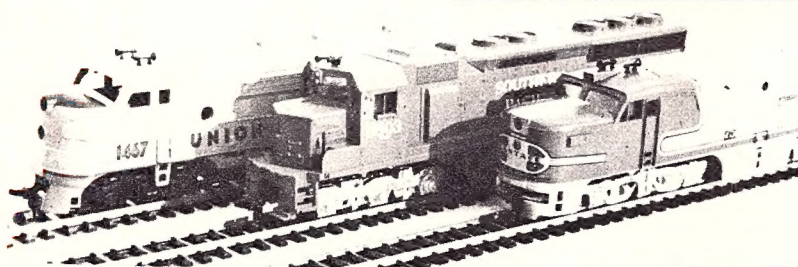
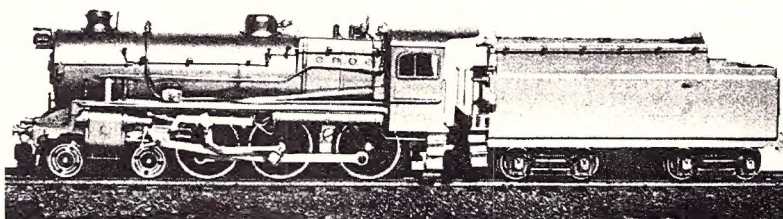


Also a glimpse of our 4th model, the 30 class tank loco, price \$67.50.

HO model of N.S.W.G.R. 48 Class diesel, to be released about April. Price \$67.50. A DUMMY UNIT WILL ALSO BE AVAILABLE for \$56.50.

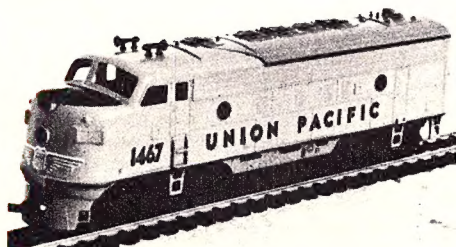
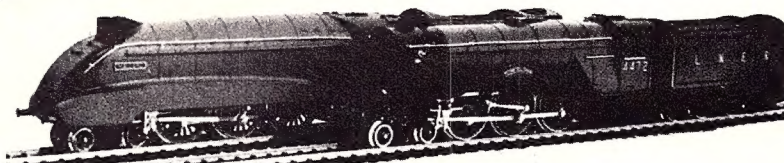


HO model of N.S.W.G.R. C36 Class in 3.5mm scale R.T.R. Unpainted. Australian price \$76.95. Available in two versions — round boiler or Belpaire. Painted \$16 extra.



Athearn, Roundhouse, North Eastern, Silver Streak and other U.S.A. brands almost always in stock.

BRITISH TRIX. These 4mm scale locos are well detailed, painted and run as well as they look. Many models in stock. Shown are Mallard \$27.75, Flying Scotsman \$29.75.



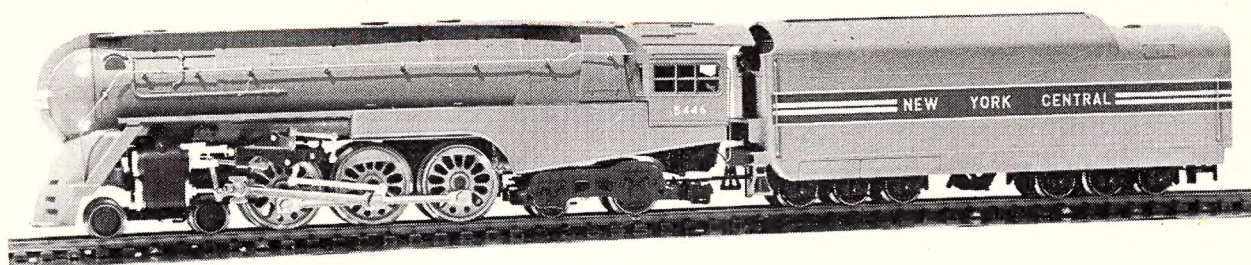
N. SCALE. Minitrix, Atlas, Lima, Bachmann. A full range of these popular makes, and many others, always stocked. Also Peco and Shinohara trackwork.

FRIEDMONT/MRC AUSTRALIAN PASSENGER & GOODS ROLLING STOCK KITS FROM \$1.99

Rivarossi

BIG NEW BEAUTIFUL

you name it — that's it!



N.Y.C. HUDSON STREAMLINER

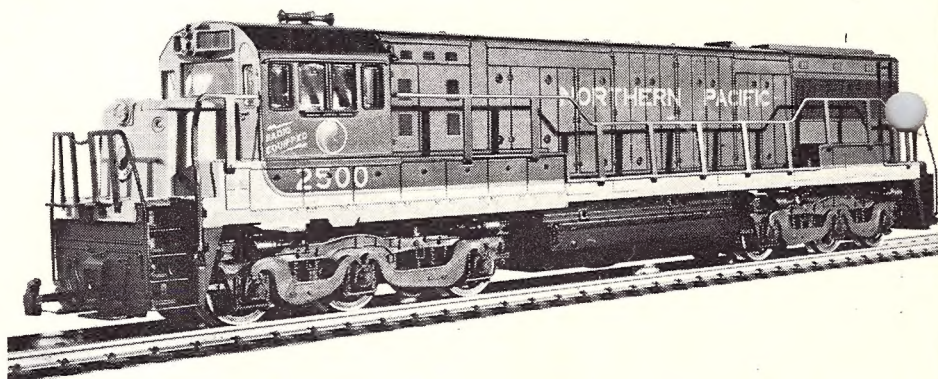
NO.1273 ONLY \$47.50

In producing their fine HO/OO model of the Hudson Streamliner, Rivarossi have succeeded in capturing all the grace and elegance of the original, with power to match. The model is very striking in its light grey main colour with darker grey band on the tender with silver trim lines and road name. The number on the side of the cab (prototype reproduced is No. 5446) is also silver. The boxpok driving wheels are a silvery grey and the

working Baker valve gear and detail are finely and faithfully reproduced. The model also features a working headlight situated centrally in the front of the stream-lined casing. The length of the loco and tender is 345mm (13 3/4") and the Model No. is 1273. Of course if you would like the non-streamlined version which has the same mechanical specifications, then Rivarossi have a model of this, too, No. 1252, also at \$47.50.

**COMING — MAY 1972
NORTHERN PACIFIC
U25C DIESEL KIT**

A complete kit of parts including motorising & lighting parts to build this Northern Pacific U25C Diesel in Dk. Green & Yellow livery 9" long.
No. 11814 \$21.50



If your dealer is stumped, he is invited to, or you may, write to us for supplies.

AUSTRALIAN MODEL CRAFT CO.

BOX 118, P.O. ALBURY, N.S.W. 2640

Phone: Albury 21-2473

::

Telegrams: AMRIANA, Albury